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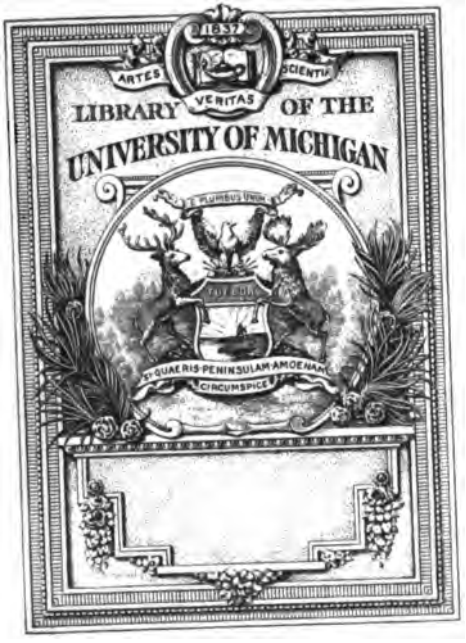

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THE
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Original Articles.

ABSCISSION OF THE TONSIL; ITS DANGERS, NECESSITIES AND INDICATIONS; A SIMPLIFIED TONSILOTOME; TECHNIQUE OF THE VARIOUS METHODS; MEANS OF CONTROLLING A SUBSEQUENT HEMORRHAGE; REPORT OF A FATAL CASE.

By W. E. CASSELBERRY, M. D.

PROFESSOR OF THERAPEUTICS AND OF LARYNGOLOGY AND RHINOLOGY IN THE MEDICAL SCHOOL OF THE NORTHWESTERN UNIVERSITY, CHICAGO MEDICAL COLLEGE; LARYNGOLOGIST TO WESLEY HOSPITAL; ETC.

Any new phase of an operation as common as tonsilotomy justifies our attention, for only so can ultimate perfection be attained, and especially so, as long as want of adjustment of a single unfortunate detail still renders a fatal issue from this trivial procedure even remotely possible. Having to report three cases wherein life was jeopardized by hemorrhage following tonsilotomy, and one other case, from the practice of a personal friend, in which death actually resulted from the same cause, I am induced to supplement previous literature on this subject by an attempt to indicate safer methods of operating and more efficient means of controlling hemorrhage.

Bosworth, in his treatise of 1892, thinks it fairly well established that, while hemorrhage may be an exceedingly troublesome accident, it is not a complication which is dangerous to life and he knows of no well-authenticated case of death therefrom. Delevan[1] states that, for many years he has made diligent search both by reading and inquiry among the leading authorities of the day in

Read before the Chicago Medical Society, Dec. 5, 1892.

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order to find, if possible, an authentic case of death from hemorrhage after tonsilotomy, performed according to modern methods, without the discovery of a single instance."

It is stated that Elsberg made the operation 11,000 times with but two cases of even alarming hemorrhage. Mackenzie, whose experience must have been enormous, "only once met with a case in which the bleeding appeared actually to endanger life."

My first case did not occur until after I had made this operation so many times without inconvenience, that real danger from hemorrhage appeared to me mythical. Then one night I was called to a distant part of the city, to a child about ten years of age, upon whom I had operated at my Clinic at the Chicago Medical College, two days before. The child had been bleeding for eleven hours and had just fainted. All attempts to staunch the hemorrhage by styptics applied by physicians previously called had failed, and judging from the various receptacles which contained clotted blood, the loss must have been large. With the occurrence of syncope, the hemorrhage ceased spontaneously, and did not recur. This tendency to cessation of bleeding simultaneously with the occurrence of syncope has been the "saving clause" in many reported cases of serious tonsilar hemorrhage, and has given untold comfort to many operators during fruitless efforts to stop the flow. And in this connection Bosworth[8] reports a thrilling episode: "I removed an unusually large tonsil from a gentleman aged thirty-one years with the Mathie guillotine, whereupon there followed a hemorrhage of so violent a character that any manipulation was rendered absolutely impossible. The blood poured from his throat in a stream. At the end of about three minutes syncope ensued and the hemorrhage ceased instantly and did not recur."

But that even the extremity of fainting, cannot invariably be relied upon to save life, is evidenced by the following unfortunate case which occurred in the practice of a physician, who is well qualified by previous experience to perform the operation. He, personally, related to me the details. The patient was a boy, aged three years, of delicate physique and retarded development, and who suffered from the symptoms which necessitate this operation. The tonsil of one side as well as the tonsil of a sister aged five years, had previously been abscised by the same operator without unusual hemorrhage, indicating the absence of hemophilia of which there was no family history. The operation was done in the early forenoon and bleeding apparently ceased immediately afterward, but really not so, for a few hours later the child having

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vomited blood, the physician was again summoned and found that hemorrhage continued. Earlier attention had not been drawn to this fact because the young child swallowed the blood which came into his throat, spitting out nothing; a source of deception to be avoided in all such young subjects. A mouth gag was inserted and efforts made to staunch the bleeding by the use of astringents, but only with partial success. Similar efforts were again made later in the day, at which time the patient appeared weakened, but scarcely in a dangerous condition. There was no arterial spurt, and no reason to think that any vessel of considerable size had been severed, only an oozing from the stump and from the slightly wounded anterior pillar. I would mention, however, in this connection, that a spurt from the tonsilar artery, may be so hidden by an overlying clot of blood as to simulate an ooze. During the evening the patient fainted and the syncope rapidly passed into death. The physician stated further, that both his own experience, and the generally accepted opinion of the absolute safety of the operation, had given him a sense of security, which, coupled with a deception relative to the seriousness of the hemorrhage by reason of the blood not being expectorated, caused him to adopt a less vigorous treatment than he otherwise would have used.

This case is unique in being the only one reported, within my knowledge, in which a fatal termination ensued from hemorrhage after tonsilotomy on a child, with the exception of one in France reported by Ricordeaù,[3] and cited by Jonathan Wright;[4] a boy aged eight and one-half years, who had an abnormal distribution of the internal carotid artery, which was cut.

The record for "adenoids," however, is less fortunate, since with fewer operations there are already recorded four cases of death from hemorrhage, two cited and one reported by Delavan,[5] in a recent essay before the American Laryngological Association, and another related by Jonathan Wright in the discussion which followed. Delavan's cases were all victims of hemophilia.

The following cases, from my own practice, concerns adults. On account of recurrent peritonsilar abscess, I abscised the moderately enlarged tonsil of a gentleman aged twenty-five years, the tonsilotome being used in preference to other means of abscission, in this particular case, somewhat against my better judgment, because the patient was already familiar with this method. The depth of the tonsil was found to contain calcareous concretions. Hemorrhage soon ceased, but again commenced before the patient reached home, at 6 o'clock. At 11 o'clock, I was summoned and found many receptacles filled with blood and the

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patient weak and anemic. The blood flowed without spurting from quite a large surface, including the tonsilar aspect of the anterior pillar, as well as the stump of the tonsil, which now lay deep within a sulcus formed by the thickened anterior and posterior pillars. Various expedients, including pressure by a Viennise instrument devised for the purpose having failed to stop the hemorrhage, I accurately located the bleeding points by rapid sponging and applied the actual cautery. Hemorrhage ceased, but commenced again the next afternoon from a small point on the anterior pillar, and was then readily stopped by the galvano-cautery.

Mr. Z., a comedian, was inconvenienced in speaking by large indurated tonsils. I removed the one of the left side, in two sections, by the galvano-cautery snare, selecting this instrument for the purpose of avoiding hemorrhage. Intense pharyngitis with edema of the uvula and velum resulted, and a week later secondary hemorrhage occurred. It continued eighteen hours and resisted the ordinary treatment before I saw him, and it was then stopped only by accurate location of the bleeding point and liberal use of the galvano-cautery.

Much the larger proportion of cases of alarming tonsilar hemorrhage occurs in adults. Dr. Jonathan Wright[6] cites twenty-five cases in which the age is specified, of which twenty were adults, or over eighteen years of age. The older the tonsil, the more fibrous tissue is developed in it, and the larger are the vessels, so that the openings of the severed vessels do not as readily contract. When one considers that comparatively few tonsilotomies are made on adults, and the many cases of hemorrhage which occur, the liability thereto seems sufficiently great to cause experienced operators to bear in mind its possibility in every case. On the other hand when one considers the number of cases beyond computation, of tonsilotomy. in children, and the few reported cases of hemorrhage, one must regard it as among the safest of even minor operations. This, notwithstanding the case just reported, in which one cannot but think it possible to have averted the fatal issue.

The consideration of the subject, therefore, may be divided into two classes, that of children and adults, and the dividing line be placed approximately at eighteen years, since the best means of abscission, as well as the indications for surgical treatment differ in accordance with these ages.

In childhood the effects of mechanical obstruction to respiration occasioned by enlarged tonsils, either alone or in conjunction with enlargement of the naso-pharyngeal tonsil, have been repeat-

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edly demonstrated, and I need only recall the more prominent features.

Mouth breathing can be caused even by enlarged faucial tonsils alone, by their projection backward and upward into the pharynx in such a way as to interfere with the passage of air inspired through the nose. Mouth breathing in turn causes deformed development of the facial bones and muscles, an idiotic expression of countenance and mental stupidity. Also deformed development of the chest and thoracic weakness. The recumbent position and absence of voluntary muscular control to keep the throat open, aggravates the obstruction to both nasal and oral respiration at night, so that the patient is frequently awakened or thrown into a nightmare by a sense of dyspnea. Deglutition and mastication are impaired in proportion to the extent of the disease, although it is probable that deficient oxygenation of the blood and disturbed rest at night, together with consequent thoracic deformity, are the chief factors in seriously stunting the development of the child. Then, too, the additional mortality from diphtheria, scarlet fever, and septic inflammations of the ears, which is determined by enlargement of the tonsils, must far outweigh the risk of tonsilotomy.

Nevertheless it has seemed to a few extreme conservatives, that even the little risk of hemorrhage should contraindicate this operation. But one cannot leave such children to their fate, as it were; and in my experience, abscission is the only satisfactory method of treatment when the enlargement is sufficient to occasion the indications just enumerated. Internal medication and local astringents I believe to be wholly inadequate. It is true that tonsilar enlargement, "adenoids," and hyperplasia of other muco-lymphoid structures are but local manifestations of a constitutional dyscrasia, now termed "lymphatism," and it is probable that the syrup of iodide of iron so far tends to correct this dyscrasia as to prevent a recurrence after operation, and even to cause partial reabsorption of very slight and recent outgrowths; but I have never been able to discern therefrom any permanent reduction of tonsils which were greatly or even moderately enlarged. Ignipuncture affords only palliation for the milder cases. I have repeatedly found it necessary to abscise tonsils, after months had been spent with this mode of treatment. Besides the method is neither painless nor itself devoid of risks. There is no other recourse, then, than to assume the very slight risk from hemorrhage and perform abscission. A greater risk is assumed in

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every walk in life, in travel, and in pursuit of business and pleasure.

The wire snare is an excellent means of abscission when the child is anesthetized, as when combining this operation with that for "adenoids," but, otherwise, it is too slow and painful, and like the galvano-cautery snare, it requires more time and quietude for adjustment than are available with young children.

The tonsilotome is still the best method for children, and I take pleasure in presenting a simplified instrument which I have used for years with the utmost satisfaction. It is the Mathieu guillotine so constructed as to do away with the fork attachment. Fig. 1.

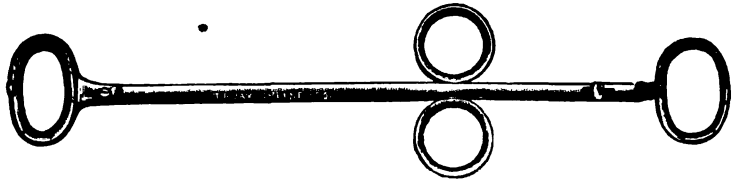

FIGURE 1.

In place of the fork I use, held in the other hand, a specially constructed vulsellum by which the tonsil can be grasped, drawn out of its bed, and abscised at the point desired with much greater accuracy than by the fork attachment. Fig. 2. I have found the action of the fork to be largely accidental, dependent on the size and shape of the tonsil and the amount of gagging by the patient, that now it determined too deep an abscission, and again misses the tonsil entirely, especially if this happens to be rather small or flat. In other words, the new instrument assisted by the vulsellum, will abscise many tonsils that could not be satisfactorily grasped by the old mechanism and it will abscise all tonsils with a reason-

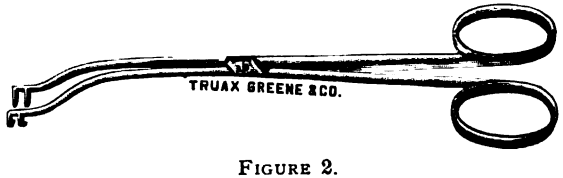

FIGURE 2.

able degree of accuracy at the proper line. The proper line or point for abscission, I believe to be close to the base of the gland, but not so close as to constitute a total extirpation. A stump should be left, but one not much larger than the normal gland, and not of sufficient size to protrude from or widely separate the pillars of the fauces. A total extirpation would seem unnecesarily haz-

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ardous on account of difficulty of access to the bleeding vessels should hemorrhage occur, and I cannot think that hemorrhage is any less prone to occur after total extirpation, as recently stated, than after abscission.

One can also by this instrument, more easily avoid wounding the anterior and posterior pillars which eliminates one of the sources of persistent hemorrhage. I consider therefore that the instrument conduces to increased safety, by virtue of greater possible precision in operating. It is less formidable in appearance and easy to use. No tongue depressor is necessary, the body of the vulsellum answering this purpose at the same time that the prongs grasp the tonsil to draw it from its bed into the ring of the tonsilotome. With older children it is best to employ a preliminary spray of two per cent solution of cocaine.

The indications for abscission of the tonsils in adult life, are only in part the same as in childhood; adult tonsils may attain enormous size, but even then, mechanical obstruction plays a less important role, while acute inflammatory attacks, and general irritation of the pharynx and larynx are frequent. Repeated acute attacks of tonsilitis entail much suffering, loss of time and appreciable danger to life, and the mere presence, in the throats, of diseased glands, which often contain foul concretions or calcareous masses, serves to maintain chronic pharyngitis and laryngitis with impairment of the voice. Any of these conditions indicate tonsilotomy, by some means, since satisfactory results are rarely otherwise obtainable.

The method of abscission, however, should be selected with a view to the least possible risk of hemorrhage, since it is demonstrated that this is a frequent complication with adults, and to this end I believe that the tonsilotome should more generally be avoided in adult cases. Especially so, if the tonsil is very large, of fibrous consistency or in a state of subacute inflammation, under which circumstances hemorrhage is particularly liable to occur. If, on the other hand, it be rather small and soft, the tonsilotome may be used, since hemorrhage is then little likely to occur, and if it should take place the small size of the stump would enable one to check the flow with greater ease and certainty than if the bleeding surface were a large one. This fact has led me to practice abscission in sections, of tonsils which are large but not enormous, nor densely fibrous, and of flat tonsils with a large or irregular base. Only one-half, one-third or one-fourth of the gland is abscised at one sitting, by first making a horizontal incision at the point selected, by transfixing the tonsil with a bistoury, then the section

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thus partially detached is grasped by the vulsellum and its removal completed by a small tonsilotome, scissors, bistoury, or clean cutting adenoid forceps, whichever seems best adapted to the particular case. As the amount of surface which is denuded at any one time is but slight, the subsequent soreness is trivial, and if perchance unusual hemorrhage should occur, the small cut surface could easily be seared over at once by the galvano-cautery. The method is less brilliant and less rapid, but safer.

In some recent cases I have substituted a cold wire snare of heavy construction for the cutting instruments in the removal of these sections, dividing the tonsil then into only two sections by a primary horizontal incision through its center, or if the gland is comparatively small and of proper shape to permit of precise adjustment of a wire loop, it may be snared off as a whole, without previous division into sections.

The latter plan is followed by Bosworth, who says: "I have for a number of years confined myself to the use of the snare exclusively when a patient has passed the age of puberty and in no single instance has the hemorrhage been more than of the most trivial character.

The method is painful but not unbearably so and the subsequent soreness though more than after abscission by cutting instruments, is less than follows the galvano-cutery snare.

I have feared, however, possible violence to contiguous nerves and vessels by the squeezing of the wire, especially with very large or fibrous tonsils, since in one case, a child operated upon under ether, there followed disturbed innervation of the face and larynx, characterized by inequality of facial expression and a shrill piping voice, but which lasted only for a few days.

Very large and densely fibrous tonsils are best removed by the galvano-cautery snare, since they are especially apt to bleed if cut and are difficult to abcise by a cold wire. In rare instances hemorrhage even then occurs, either primarily when the wire is overheated, or secondarily on the separation of the slough, as related in case IV. The chief objection to the method for general use is the intense inflammation of the fauces which is liable to follow. This can be, in part, but not wholly obviated if one is careful not to singe the pillars, which, however, are not so easily avoided in the use of the cautery-snare. To this end, Dr. Jonathan Wright[6] has adapted the frame of the Mackenzie tonsilotome to galvano-cautery purposes, by substituting for the steel blade a wire, mounted on compressed paper, and to be connected with a battery.

Consideration of this subject would not be complete without

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reference to the views of Dr. Harrison Allen[7], of Philadelphia, as advanced in a recent essay before The American Laryngological Association. He believes that abscission should be restricted to removal of the superficial or cortical part of the tonsil; and in preference to the treatment of amputation of the whole mass, that after removal of such cortex, should the crypts be closed he would search for hidden canals and when found pass a probe or director through them and freely divide the overlying tissues, incising thus the tonsil in any direction and to any required depth. After this is done the separate, coarse lobules can be severally taken up by forceps and removed, care being taken to avoid touching enveloping folds of mucous membrane.

It is evident that this would be an impossible method with most young children, because of tediousness, but it may be advantageously utilized with certain adults.

What shall be done in case of severe hemorrhage? I mean hemorrhages which are not promptly arrested by ice, pressure, Mackenzies' mixture of tannic and galic acids, solution of subsulphate of iron, and similar expedients, which are sometimes wholly inadequate.

Then, the bleeding points and surfaces should be accurately located and thoroughly seared by the actual cautery or the galvanocautery, if at hand.

For this purpose one needs several small sponges, mounted on long sponge-holders, which, if not at hand, may be substituted by wooden sticks; sponges are much more effective than absorbent cotton; also a small surgical retractor, like a tracheotomy retractor, in the absence of which, a palate hook or even a bent probe will serve. An assistant is desirable to hand and clean the sponges.

The throat should first be well sprayed with a five per cent solution of cocaine, well illuminated by a head reflector, and sponged clear of clotted blood; the bleeding surface can then be exposed to view by holding aside the anterior pillar by means of the retractor, when, by rapid sponging, the bleeding points can be discerned, and cauterized. In one of my cases as a substitute for the galvano-cautery, I used a thick wire which had formerly been the metal stem of a laryngeal mirror, and which I heated to redness over a gas flame.

When the hemorrhage is comparatively slight, exact cauterization of the bleeding points by solid nitrate of silver is effective.

I would endeavor to effect the same treatment with young children, by first administering chloroform and inserting a Whitehead gag, as in operations for cleft-palate, placing the patient with the

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shoulders elevated and the head pendant so that blood could not gravitate into the trachea.

Of other expedients I would mention torsion and compression, as appliable only when a spurting artery can be seen, but for which contingency I have devised a long artery compression forcep; also ligation of the entire bleeding stump, only rarely possible; and as a last resort, ligation of the external carotid artery, as advised by Delavan, in preference to ligation of the common carotid, which latter has permitted hemorrhage to continue hy collateral circulation through the circle of Willis, thence, down the internal carotid into the external branch.

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[1] Ref. Handbook of the Medical Sciences, Vol. VII, pg. 143.
[2] Diseases of the Nose and Throat, Vol. 1, pg. 72.
[3] Thèse, Paris, 1886.
[4] New York Med. Jour., Aug. 30, 1890.
[5] New York Med. Jour., Nov. 19, 1892.
[6] New York Medical Journal Aug, 30, 1890.
[6] New York Medical Journal, Aug. 30, 1890.
[7] Transactions of the American Laryngological Association, 1891.

REMARKS ON SO-CALLED URETHRAL FEVER.

BY G. FRANK LYDSTON, M. D.

PROFESSOR OF THE SURGICAL DISEASES OF THE GENITO-URINARY ORGANS AND SYPHILOLOGY IN THE CHICAGO COLLEGE OF PHYSICIANS AND SURGEONS.

Urethral or urine fever is an omnibus term which time honored custom has applied to certain morbid phenomena that occasionally follow operations upon the genito-urinary tract. As is well known these phenomena not infrequently follow simple dilatation, indeed a slight operation is often productive of serious results in cases in which severe operations are well borne.

The greatest discrepancy exists in the statements of various authorities regarding the pathology of the polymorphous disturbances which have been known by the various terms of urethral, urinary, Guyon, and urine fever. This would appear to be due to the fact that these terms have been applied in a haphazard manner to several distinct types of disease consequent upon diseases of, and operations upon, the genito-urinary apparatus; and I think that a careful survey of the clinical evidence upon the subject will substantiate this opinion. Urethral fever, as the term is ordinarily

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used, is, so to speak, a blanket term as broad as the mantle of charity, which covers a series of widely varying phenomena following chronic disease, or accidental or surgical trauma of the genito-urinary tract. Fallacious as the nomenclature of these phenomena may seem to be, surgeons have seemed to think it necessary to select some comprehensive term by which they may be recognized. The term urine fever as suggested by Reginald Harrison is perhaps the most accurate.[1] Unfortunately, however, even this term is suggestive only of one element which may act as a causal factor in the production of the morbid phenomena which we are about to consider. It is also objectionable because it suggests toxicity of the urine per se. Harrison has adopted this term because of his opinion that the so-called urethral fever is invariably due to morbid changes in the urine at the site of injury, these morbid changes giving rise to the development of toxic materials, which, when absorbed into the circulation are always inimical to health and often productive of a fatal result. Whatever the cause or causes of urethral fever may be, the subject is one of the greatest practical importance to the surgeon, for the various phases of this complex series of morbid phenomena constitute the principal danger of operations or injuries of the urethra, prostate, bladder, and occasionally, the kidney.

It should be apparent to the clinician, that the omnibus term urethral fever, has been made to include conditions which bear no relation to each other, save in the fact that they have the same point of departure or exciting cause, viz., disease or injury of the genito-urinary tract. It is obvious that nothing else justifies the prevalent nomenclature of the various phenomena resulting from operative interference with this region. Surgical shock, uremia, nervous manifestations and sepsis, following operations on the urethra and bladder, are entirely different conditions. It is true that these various states may exist in varying combinations; this does not however justify an omnibus nomenclature. How widely different are those cases in which death results shortly after the introduction of a sound, and cases of classical septemia following genito-urinary operations; yet these distinctive types of disease are included under the head of urethral fever. Much of our recent knowledge of the subject is due to bacteriological studies, which prove conclusively that many of the cases hitherto described as classical urethral or urine fever, are due to germ infection, or the absorption of germ products, and should be designated accordingly.

From an etiological standpoint, I believe that we are warranted in dividing the varying phenomena embraced by the so-called

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urethral fever into no less than seven forms of morbid phenomena, these varieties, however, being capable of demonstration only in typical cases in each instance. They may merge one into the other and are all secondary to genito-urinary operations, chronic disease, or injury, but should by no means be embraced under a common head.

1. The first form, which is by far the simplest, consists of a nervous rigor, which is not succeeded by fever, and which follows, within a comparatively short time, operations or injury. This nervous disturbance is, in all probability, due to slight surgical shock, with a resultant vaso-motor disturbance of the peripheral circulation.

2. Traumatic or surgical fever, ferment fever, due to the same causes, and dependent upon excessive reaction from surgical shock, perverted general metabolism, or local excessive metabolism of the products of aseptic tissue necrosis (Park) in combination with decomposition of fibrin ferments (Von Bergmann). This form of fever is quite apt to be modified by a varying degree of septic infection.

3. Toxicemia following severe shock with a resultant perverted elaboration and absorbtion of the products of decomposition from the urinary secretion, there being a formation of organic poisons, or toxines similar to the vegetable alkaloids. Associated with this we may have reflex inhibition of the function of the kidney with its attendant uremia, and a perversion of general tissue metabolism. This we may term the typical form of urinary fever. It is sometimes complicated by convulsions.

4. Classical septemia, or sapremia, which may prove fatal within a short time, or may merge into the pyogenic general condition known as pyemia, with its characteristic thrombo-phlebitis and circumscribed and diffuse suppurations from septic emboli in the various organs and tissues of the body. The latter may supervene without the characteristic phenomena of ordinary sepsis.

5. General elevation of temperature due to gonorrhea.

6. Chronic "urinary" fever, or better, toxicemia, attendant upon obstructive diseases of the urinary organs.

7. Cases of mixed type which combine in varying degrees elements of the first four forms of the disease. Under this head may be classed the results of certain local suppurative foci in the perivesical cellular tissue, prostate and kidneys, due to microbial infection.

If this classification be scientifically correct, it is not surprising that the opinions of various authorities in regard to the path-

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ology of urethral fever vary so widely. There must be some explanation for the fact that one authority claims that these varying phenomena are invariably septic; another that they are due to ammoniacal decomposition of urine and subsequent absorption of the products; another that they are due to simple uremia, and last but not least, and of this theory Reginald Harrison is the principal exponent, that they are due to obscure changes in the urinary secretion, and the formation of new and as yet unisolated toxic compounds. It is evident to every practical surgeon that no one of these causes is sufficient to explain all of the cases of so-called urethral fever. Simple absorption of healthy urine certainly will not cause the disease, nor, as has been shown by Keyes,[2] will it produce even simple suppuration when introduced into the cellular tissue by hypodermic injection. We do know, however, that urine in a state of decomposition, is possessed of most powerful propensities for evil; in fact, there is hardly any organic substance with which I am acquainted that is so inimical to the vitality of cellular tissue. The experience of our most eminent surgeons in cases of urinary extravasation will bear me out in this assertion. Now, there is a close resemblance between the effects of extravasation of decomposing urine and those of the poisons of erysipelas, of dissecting wounds, or even the bite of venomous reptiles, as far as their effects upon the vitality of connective tissue are concerned. It is obvious to any thoughtful surgeon, that there must necessarily be in all cases of injury or operations upon the urinary organs, pronounced danger of septic infection. The injury, or the site of the injury, is usually such that free drainage is impossible; decomposing urine is usually present, and is productive of more or less widespread death of connective and cellular tissue, and there always prevail the conditions of heat and moisture, and pernicious activity of functions. Such an environment, as every biologist is well aware, is peculiarly favorable to the development of those minute organisms upon which septemia and its congeners unquestionably depend.

None of the explanations which have been given will, when taken alone, explain the fatal result which has been known to occur from the simple introduction of a smooth staff into the urethra.

There is also food for reflection in the fact that a simple straight cut in the urethra, as, for instance, that produced in internal urethrotomy, is productive of less shock in many cases than repeated stretching of the sensitive structures of the stricture by a sound or bougie. It is well known that an irritable, sensitive, and contractured tissue is much more safely and comfortably dealt with

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in any situation by complete division than by repeated attempts at stretching. If the cases were all septic in origin, this proposition would not hold good, as a wound of the urethral mucosa is a cordial invitation to septic infection.

The cure of stricture by gradual dilatation is dependent upon 1, mere mechanical distension; 2, upon reactionary hyperemia, with increased tissue change at the site of the organic deposit. The functions of the lymphatics and veins are increased in activity, and absorption takes place very rapidly. It would appear, then, that if the tissue be extraordinarily sensitive, as is frequently the case in organic stricture, and if there be present toxic principles from decomposing urine, or ordinary septic materials at the sight of the stricture or behind it, the operation of dilatation must necessarily be followed by a degree of nervous shock dependent upon the susceptibility of the individual and the degree of roughness of manipulation, and by a varying degree of absorption of noxious materials. The lymphatics and veins, unfortunately, have not the power of discriminating between these organic substances which are inimical to the welfare of the individual, and those which can be disposed of in a physiological manner without injury to the blood or tissues, and they therefore take up the poisonous materials simultaneously with the products of retrograde tissue change.

The relation of organic and functional disturbance of the kidneys to so-called urethral fever is a most intimate one. There is probably no case of long-standing obstructive disease of the genito-urinary tract, which is unaccompanied by functional aberration of the kidneys, and in a large proportion of cases there occurs later on actual organic changes in the renal tissues. This condition of affairs is to be anticipated and should be given serious consideration in every case of chronic urinary disease. The immediate effects of the kidney difficulty may not be marked, because of the activity of vicarious elimination by the skin and bowels, this vicarious action of these structures constituting the means by which the system accommodates itself to the imperfect elimination of the constituents of urine. There are very few persons, even among those who term themselves healthy, in whom the bodily sewage is absolutely perfect, and it is obvious that when the kidneys perform their functions imperfectly, this condition of imperfect sewage becomes one of vital importance. When, as a consequence of operations upon the genito-urinary organs, surgical shock is produced, reflex hyperemia of the renal tissue is quite apt to result. This causes a strain upon the circulation of the kidney, which in its impaired condition it is unable to withstand, and as a consequence

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its functions are completely inhibited with resultant uremia. This reasoning is not altogether new, but it is essential to completeness.

To those who are familiar with the physiology of the nervous system in its more intimate relations to visceral functions, the association of renal aberration and reflex irritation is not at all novel, but there are many who have never had this particular phase of neuro-pathology brought prominently before them. Many interesting examples of urinary suppression from reflex inhibition of renal function have been observed. My friend, Dr. J. W. Long, of Randleman, South Carolina, in an exceedingly able and scientific paper on this subject before the Southern Surgical and Gynecological Association, reported a case which is of great interest.[3] "H, age seven years, complained of pain and soreness in the ileo-cecal region, had some fever, and was confined to bed. There was complete suppression of urine for three days, the catheter being repeatedly used without getting any urine. Appendicitis was diagnosed and preparations for an operation made. Some delay occurring, the father, without my knowledge, gave one teaspoonful of a vermifuge which contains Jerusalem oak; the next morning the boy passed at stool a ball of lumbricoid worms which the father untangled and found to contain sixty of these parasites. Within twelve hours after discharging the worms, the boy passed unaided six or eight quarts of urine. He speedily convalesced." Dr. Long's remarks anent cases of this character are of especial value, and his paper will well repay careful study.

Peyrani has shown that the sympathetic nerves have a remarkable influence over the secretion of urine, galvanization of these nerves increasing the amount of urine and urea, while section of them causes both urine and urea to sink to a minimum.[4]

Bernard long ago proved that albuminuria can be produced by puncture of a certain spot in the floor of the fourth ventricle.[5]

Edes remarks: "Lesion of the cerebral peduncles, section, destruction, or irritation of the spinal cord, and irritation of the renal nerves, are also causes of albuminuria."[6]

Millard calls attention to an interesting paper by Drs. Arnand and Butte on "Neuropathic Albuminuria," presented to the Parisian Academy, and directs especial attention to the description of a type of albuminuria "characterized by preëxisting and existing symptoms in the viscera innervated by the pneumogastric nerve. The irritation to the pneumogastric in these viscera, is reflected through the vaso-motor system to the kidneys, causing albuminuria."[7]

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There is only too abundant proof of the independence of renal disturbances, and especially albuminuria, upon reflex irritation. As Dr. Long states in his excellent paper, renal aberration is most liable to occur from operations in and about certain special regions notably the abdomen and genito-urinary organs. The explanation of this fact is not very difficult to the neuro-physiologist. The intimate relation of the sympathetic ganglia through their visceral filaments of distribution and their liberality of innervation of the genito-urinary organs, with the nervous supply of these regions, is an all-sufficient explanation. Nowhere are the cerebro-spinal and sympathetic systems more closely associated than in these parts. This being understood, it is by no means surprising that injuries in these locations should give rise to reflex disturbances of correlated parts, even though the latter may be more less distant. The functions and physiological integrity of the abdominal and pelvic viscera are dominated by the solar plexus, so aptly termed the abdominal brain, the kidneys being intimately associated with the other organs through the medium of the renal plexus; the component parts of which are filaments from the solar and aortic plexuses, semilunar ganglia, and lesser splanchnic nerves. Passing into the renal substance from the renal plexus, are some fifteen or twenty filaments with numerous associated ganglia. These nerve filaments accompany the arteries. The multitudinous distribution of these filaments to the parenchyma and vascular system of the kidneys is well described by Holbrook.[8] As described by this author, the nerves supplying the renal tissue are principally of the nonmedullated variety, sometimes surrounding the arteries in immense numbers, encircling them above and below, freely branching, bifurcating and supplying all of the neighboring structure with numerous delicate fibrile; a plexus encircling every tubule; supplying the connective tissue, extending into the layer known as the membrana propria, and even piercing this structure and penetrating into the epithelia and the cement substance between them; the nerves also give off delicate ramifications of fibers to the efferent blood vessels by which they enter the tufts and produce a delicate plexus spun around the capillaries. The distribution of nerves is richer in the convoluted and narrow than in the straight collecting tubes. Reasoning from these anatomical facts, it is not difficut to understand how irritations of the abdominal and pelvic viscera or of the genito-urinary organs, may be reflected to, and produce morbific changes in the kidneys. Hardly a case of genito-urinary disease perhaps runs its course without some such reflex impression. The result depends chiefly upon the organic

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state of the kidneys; if this be bad, speedy death may result. To use a homely illustration of this point, all operative manipulations of the genito-urinary tract are liable to concuss, so to speak, the renal nerve supply, i. e. are likely to bring a reflex strain upon the vascular supply, and secondarily upon the nutrition of the kidneys.

Regarding reflex impressions upon the structure and functions of the kidney, Engelmann says:[9] "Functional derangement, and finally, morbid changes, are produced by nervous influences emanating from diseased pelvic viscera. (1) As reflex phenomena or (2) by perverted nerve action by the secretory nerves due to the intimate connection of the uterine and renal plexus. Suppression of urine occurs as a reflex; more generally speaking, hysterical symptom, and may lead to pyelitis, a mild nephritis, or hydronephrosis." Dr. Engelmann then cites a case in which nephritis followed spasmodic stricture of the urethra (?), after which he says, "I believe such cases to be more frequent in connection with pelvic disease than we may suppose, as the slight symptoms produced are overlooked amid the varying pains of the primary disease." Obviously, what is true of pelvic and utero-ovarian lesions in women, is equally true of genito-urinary lesions in the male, as far as reflex functional and structural aberration of the kidney is concerned;

As regards renal disturbances after laparotomy, it has been fully established by English and others, that abdominal traumatisms are prone to develop albuminuria as a result of an impression made upon the solar plexus. Weir relates a case of gastro- enterostomy, done for simple pyloric stenosis, as illustrative of the occasional effects of abdominal operations upon the kidney. Prior to the operation, repeated examination failed to show the presence of either albumen or sugar, but within forty-eight hours after the operation, one-half per cent of albumen and four per cent of sugar, with granular and epithelial casts, were found in the urine.

Forty-eight hours later the morbid state of the urine had entirely disappeared. Weir seems to believe that some traumatic disturbance of the solar plexus during the operation explains the renal symptoms.

I trust that this rather voluminous expatiation upon the relation of reflex irritation to renal aberrations, may not seem superfluous, for to my mind it has a most important practical bearing upon so-called urinary fever, and the various accidents embraced under this omnibus term which are the bete noire of genito-urinary surgery.

The subject of autogenesis in its relations to the development

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of certain constitutional diseases demand more attention than is usually accorded it, and it is probable that physio-chemical researches in this direction, will in the future shed new light upon many diseases, the etiology of which is now obscure.

Among the modern writers who have given considerable attention to the morbid results of perverted physiological chemistry, Benjamin Ward Richardson is perhaps the most prominent. It is to the researches of this author that we are indebted for the most widely accepted theory of the pathology of rheumatism.

It is probable that perverted tissue metabolism bears a causal relation to the typical cases of urethral fever. This perverted physio-chemism may quite readily be brought about by surgical shock, this being especially marked in the glandular tissues. We know quite well that mental emotions of various kinds and those impressions upon the nervous system which result in the condition that we term "shock" may produce marked changes in the physiological secretions of the body, these changes consisting either in an increased or diminished flow, or obscure chemical changes of composition; thus we may have through various nervous impressions an increase or decrease in the quantity, and probably a change in the quality of the saliva, the lacteal secretion, the gastro-intestinal secretions, the urine and of the menstrual flow.

A familiar illustration of the chemical effect of various emotions upon physiological secretions, is the change in the quality of the lacteal secretion, induced by fright, anger or grief. This change, although occult and incapable of satisfactory demonstration by microscopical or chemical research, is most pronounced in its morbid effects upon the child; so-called cholera infantum of a most fatal character being occasionally an apparent sequel to the emotion of anger in the mother. Precisely what this change in chemical composition may be is an open question, but it is possibly a species of decomposition which results in the formation of a poison analagous to the "tyrotoxicon" discovered by Prof. Vaughn in impure cow's milk. It is well known that great care is necessary on the part of those who supply milk for the use of infants, to prevent fatigue and various sources of excitement in the cows from which it is taken. It is well known, too, that sexual excitement in the cow is productive of marked changes in the milk, and renders it unfit for human food.

If the changes above indicated occur in one secretion, it is highly probable that all of the physiological secretions are susceptible to them. It is probably true in the case of the saliva, that the emotion of anger causes the development of toxic principles in

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that secretion, and this may possibly explain the serious results that are apt to ensue from the bite of an enraged human being.[10]

The difficulty of proving this theory in the present state of our knowledge of physiological chemistry is obvious. In the case of the urine the influence of surgical shock may be inferred to consist in some cases of the development of organic poison in that secretion. This may be considered to be hypothetically analogous to the toxines, ptomaines and leucomaines discovered by Selmi and Gautier and others in both dead and living bodies, and which so closely resemble the vegetable alkaloids, particularly nicotine, brucine and strychnine.[11] The toxicemia resulting from such changes will perhaps explain the otherwise obscure and mysterious cases of death following the simple introduction of a sound.

Recent observations in the chemistry of the urine go far to support the theory of autogenesis from nervous perturbation in the etiology of general infection from genito-urinary disease. Feré and Voisin by a series of careful experiments, have shown that ptomaines develop in the urine of epileptics during the attacks. The products thus formed produce convulsions when inoculated in animals. These experiments are strikingly suggestive to say the least.

In some cases the development of uremia or toxicemia is very gradual, and results from successive operations upon the urethra. The poisonous materials may accumulate in the system for some time and their presence fail to manifest itself until the system, so to speak, is ready for the explosion, when a previously well tolerated and comparatively slight irritation of the genito-urinary apparatus will be sufficient to develop a serious result.[12]

The following case illustrates the point just made: A competent surgeon of this city had performed urethrotomy upon an apparently healthy young man of twenty-eight years of age. The stricture was located about three-fourths of an inch posterior to the meatus and was divided under cocaine without any difficulty or pain whatever, each subsequent operation of dilatation being preceded by the injection of a four per centum solution of the muriate of cocaine, the quantity used being about two fluid drachms. About a week after the urethrotomy, the patient complained of considerable nervousness and insomnia, but this was not considered of any particular importance. On the 9th day an attempt was made to perform the usual operation of sounding and injection of cocaine, the patient meanwhile lying on an ordinary surgical chair. The doctor left the patient for a moment to obtain his sound and to give the cocaine an opportunity to affect the urethra. He was

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called back in about a minute by the patient, who complained of dizziness, and immediately fell back in the chair in convulsions. Assistance was called, stimulants were given, and the galvanic current used, but without avail, the patient dying in something less than five minutes.

At the post-mortem a thorough examination of all the vital organs was made, but everything was found perfectly healthy, with the exception of the kidneys, which were so extremely congested that they presented an appearance similar to that of the spleen. This fatal result was probably not attributable to the cocaine, but so to speak, to the sudden explosion of poisonous materials which had been gradually accumulating in the system as a consequence of imperfect action of the kidneys and the metabolic action of slight surgical shock upon the tissues. This condition of toxicemia gradually grew more pronounced and finally was so severe that a comparatively slight irritation was sufficient to inaugurate a nervous explosion. Such an irritation was afforded by the mechanical effect of the injection of cocaine, and it is probable that the introduction of simple water would have had a similar effect.

The danger of the development of urethral fever has been found to be directly proportionate to the depth of traumatic and surgical injuries of the urethra, i. e. their distance from the meatus. Those situated in the pendulous portion of the urethra are not, as a rule, very dangerous as compared with those situated in the fixed or deep portion of the canal. The explanation of this is very simple, the nerve supply of the deep urethra being much more abundant and sensitive, the cellular tissue more abundant, and the opportunities for drainage much less favorable than in the pendulous urethra. Decomposing urine is less apt to remain behind a stricture in the pendulous portion of the canal than in the deep portion, this being due to simple gravity and to the fact that strictures of this portion of the canal are usually of large caliber. Urinary extravasation in the pendulous portion of the urethra is not apt to produce serious danger to life, inasmuch as the connective tissue in this situation is very sparse and the extravasated fluid is likely to be detected before it has burrowed back into the perineum.

The relation of germ infection, or the absorption of the products of germ evolutions, to the septic varieties of urethral fever is a most important one. This is abundantly proven by the researches of Guyon, Clado, Bumm, Rovsing, Hallé, Krögius,[13] Albarran and many others, investigators whose testimony is unimpeachable. As illustrative of the polymorphism of genito-urinary infec-

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tion, Rovsing's studies are of especial value. This author found in twenty-nine specimens of pathological urine twelve species of microbes. With some of these, such as the bacillus tuberculosis and staphylococcus, pyogenes, we are very familiar; others again were deemed worthy of special nomenclature. All of these microbes showed pathogenic properties when experimentally inoculated.

The clinical features of the various morbid phenomena which have been hitherto included under the head of urethral fever require some special consideration:

The nervous form of the so-called entity usually appears in patients of an impressionable constitution, or who, in other words, present a decided tendency toward neurotic disturbances. Oftentimes its occurence may be anticipated by the behavior of the patient while he is under instrumentation. He is quite apt to have nausea, perhaps vomiting, slight rigors, partial or complete orgasm, or more or less complete syncope during the introduction of instruments in the deep urethra. Such patients are apt to develop, within twenty-four hours after urethral operations or injuries, as a rule, a sharp chill. This lasts for a variable time, being rarely prolonged, and then disappears, leaving the patient about as well as before, with the exception perhaps of more or less mental depression. Rarely indeed, there may be a slight amount of fever or sweating. The chill may come on within a very few minutes after the operation.

The traumatic form is the most common; it manifests itself by a sharp chill, usually within twenty-four hours after operations or injuries of the genito-urinary tract, and is followed by pronounced fever and sweating. The disturbance either passes off after a single paroxysm, or is followed by a period of general malaise, with perhaps a recurrence of the paroxysms for several days. In these latter cases there is present in all probability a slightly septic element.

The third form, the typical urine fever, if such a thing exists, may or may not be attended by a violent chill coming on within twelve or thirty-six hours. There are marked prostration, violent vomiting and diarrhea, coldness of the surface of the skin at first, succeeded by more or less febrile movement of temperature later on if the patient survives, with suppression of urine, merging in a very short time in fatal cases into coma of an apparently uremic type. I say "apparently uremic type" because according to the theory already advanced regarding the action of shock upon the urine, there is probably in many cases a toxic element present which is independent of uremia. Cases of this kind may come on gradu-

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ally and manifest themselves by a sudden explosion in the form of convulsions, as is illustrated by the fatal case that has just been related.

The fourth or septic form manifests itself usually by a slight, but sometimes by a very severe chill; this is followed by fever of a varying degree of severity. The patient may sink into a typhoid condition, or become comatose, and die within from two to ten days from acute septicemia, or the condition may be subacute and merge into the pyogenic form of septemia, known more familiarly as pyemia, in which event the patient finally succumbs to the slow development of circumscribed or diffuse purulent deposits in the joints, viscera and other structures of the body, dependent upon infection with pyogenic microbes and their products.

The fifth or chronic form of urinary fever may be described as a chronic condition of toxicemia and nervous irritation produced by long continued obstructive and inflammatory affections of the genito-urinary tract. This condition of toxicemia and general nervous irritation is one which is not generally recognized, but which is very important in its relations to chronic genito-urinary disease. It exists in the majority of cases of organic stricture of long standing, in old men suffering with prostatic hypertrophy, in tumors of the bladder, in chronic cystitis from whatever cause it may arise, and in pyelitis, particularly the form due to the presence of nephritic calculi. There is a marked tendency in patients suffering with these affections to a mild form of hectic fever; flushings of the face with slight elevation of temperature and perhaps followed by a certain degree of perspiration are quite common; nervous irritability is especially marked. Indeed, there are few conditions that are productive of so much mental depression and of so much irritability of temper as chronic diseases of the genito-urinary tract. The old man with a vesical calculus or prostatic hypertrophy, or for that matter, a young man with a stricture, is apt to be unreasonably morose and irritable. In all of these cases there is apt to be present more or less obscure rheumatic or neuralgic pains in various situations. After prolonged retention of urine from any cause whatever, it will be found that the majority of patients will suffer for a few days or weeks from more or less marked elevation of temperature.

The different general conditions which have been outlined are due in my opinion to a toxicemia which is dependent upon (a) imperfect elimination of the products of retrograde tissue metamorphosis; (b) to a greater or less degree of absorption of morbific materials produced by chronic inflammations and bacterial evolu-

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tion, and the decomposition of residual urine behind the site of obstruction, i. e. pseudo-alkaloidal germ products. It will be observed that many patients suffering from chronic genito-urinary disease of an obstructive or chronic character, fail to realize how sick they are until the diseased condition has been removed, or at least greatly improved; they then find that slight disturbances to which they had paid comparatively little attention and which they had never dreamed of attributing to their urinary trouble, have disappeared. This is due in great measure to the fact that reflex nervous irritation has been relieved, but more than this, it is due to the fact that the constant absorption of poisonous materials from the site of disease or above it no longer occurs.

General febril movement attendant upon gonorrheal infection is worthy of attention in the consideration of so-called urinary fever, only when the gonorrhea arises as a complication of chronic genito-urinary disease, or operation. Its practical importance has been suggested to me by the results of operations upon patients recently exposed to gonorrhea.

I have designated a seventh or mixed form of so-called urethral fever. It is probable that few cases will be met with that cannot be assigned to one or the other of the first five varieties of disturbances that have been described; it is to be expected that cases will accasionally occur in which there exists in varying proportion evidences of septic disturbance and of uremia, with possibly a tendency to disturbance of the nervous functions. A clinical differentiation might in such cases be impracticable.

It is obvious that the range of cases which may properly be classified as urethral or urine fever is rather limited. These cases resulting from septemia and surgical shock are certainly improperly so classified. It might be better to abolish the term altogether were it not for the fact that it is an excellent bogie man to impress the necessity of operative caution and asepsis in surgical tyros.

It has been my experience that patients suffering from paludal poisoning, are especially apt to develop chill and perhaps fever, after genito-urinary manipulations.

OPERA HOUSE BLOCK.

[1] Lettsomian Lectures, 1888.
[2] Op. cit.
[3] Trans. Southern Surgical and Gynecological Assoc. 1891.
[4] Flint. Phys. of Man Vol. iii. Secretion P. 281 et seq.
[5] Flint, Physiology of Man, vol. iii, Secretion, page 281 et seq.
[6] Pepper's System of Medicine, vol. iv, p. 40.

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[7] N. Y. Medical Journal, May 9, 1891.

[8] Paper on nerve terminations in the kidneys, before the Am. Soc. of Microscopists. Quoted by Millard. Dis. of the Kidneys.

[9] Trans. Am. Gyn. Society, 1889.

[10] Tuke in "Mind and Body" calls attention to the influence of mental impressions in perverting the various physiological secretions. Tissot, "therapeutique morale" 1798, foreshadowed much of our modern ideas of perverted tissue metabolism.

[11] Harrison believes that such compounds may develop in the urine under certain circumstances. R. Harison, Op. cit.

[12] Sir Andrew Clark has also recently suggested that "catheter fever" may be due to some nutritive disturbance due to reflex nervous influences. Meeting of Brit. Med. Ass'n. Aug. 1888.

[13] In seventeen specimens of pathological urine, Krögius found in twelve cases a bacterium which he considers to be practically identical with pyogenic microbes and the bacterium coli commune. In eleven cases this germ was present in pure culture.

THE RELATION OF NEPHRITIS TO CERTAIN CARDIOPATHIES.

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The relation of nephritis to certain cardiopathic conditions, is a question which has called forth considerable discussion on the part of medical writers ever since Bright, in 1836, published in Guys Hospital reports, a tabulation of the anatomical findings in 100 cases showing albuminous urine.

Bright accepted Bostock's view of a changed, impure condition of the blood, which, he argued, either irritated the heart directly, or, impaired the capillary circulation so as to call for greater effort on the part of the heart. He believed that sixty-five per cent of the cases exhibited cardiac complication. Bright's views regarding the etiology, and frequency of cardiac hypertrophy in nephritis, were corroborated by Malmsten, and Osborne, and also by Christison as to the frequency; the latter believed that the hypertrophy might precede the kidney disease, but that granular degeneration of the kidney predisposed to hypertrophy of the heart through the changed condition of the blood. Rayer denied the very frequent association of hypertrophy with nephritis, and believed the cardiac conditions to be primary, secondary, or purely accidental.

Johnson did not believe that the heart disease could produce the kidney lesion, but believed both to be due to a general ten-

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dency to fatty degeneration. Rees considered the association of heart and kidney disease as frequent, and believed the kidney lesion to be primary, and that morbid conditions in the kidney were very common in chronic heart disease.

Frerichs noted the changes in the heart and arteries in nephritis, and believed that the renal hyperemia resulting from heart disease could develop into degeneration of the kidney; he refused to accept the etiological views of Bright, because the impure condition of the blood was not proven, and because right ventricular hypertrophy did not occur in some instances where the blood was markedly changed in renal disease; Ziemssen raises the same objection.

Traube was the first to claim that the hypertrophy depended not on kidney lesion in general, but on that variety which led to contraction, causing obliteration of the arterial branches in the kidney, and the vessels of the Malphigian tuft, causing increased tension in the arterial system, having the same relative effect on the left heart that mitral disease, or certain pulmonary diseases, would have on the right ventricle. He denied the position of Rayer, Reinhardt and Frerichs, that renal hyperemia secondary to heart disease, could develop into degeneration of the kidney. He admitted the renal changes which results from diminished tension in the arterial tract, and increased tension in the venous tract, but denied the possibility of these becoming identical with the changes in a sclerosed kidney. Traube claimed that besides the diminished vascular capacity in the kidney, that numerous Malphigian tufts and Bellinis tubes were destroyed, causing diminution of the amount of blood passing from the aortic into the venous system, and less fluid taken from the blood for urinary secretions, thus increasing the volume of blood in the arterial tract, increasing the tension and resistance to evacuation of the left ventricle, causing dilatation and compensatory hypertrophy. Traube's views were opposed by Bamberger, and seconded by Friedreichs.

Ziemssen says that the volume and character of the blood are important in estimating the interdependence of heart and kidney disease. He agrees with Traube in considering hypertrophy of the left ventricle as efficiently compensating loss of renal secreting tissue. The theory of Traube was soon abandoned by many, and Gull and Sutton in 1872 described a degeneration of the smaller arteries throughout the body, which they termed arterio-capillary fibrosis, and which they placed in a direct causal relation with both heart and kidney lesions. The anatomical changes as described by Gull and Sutton were not correct, though the general arterial

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disease, in connection with renal changes, as a cause of cardiac hypertrophy, was generally accepted. These observers do not seem to have received fair consideration at the hands of the German writers. Fraentzel states that they have only considered contracted kidney, so that if true, their explanation could not apply to cardiac changes in the large inflamed kidney; whereas they recognized the fact that the cardiac and vascular changes were as various as the kidney lesions, and ascribed the cardiac hypertrophy of parenchymatous nephritis to retarded circulation because of general edema of the tissues, and failure of nutrition from anemia and uremia. Ewald, after extensive investigation, found neither degeneration or chronic inflammation of the smaller arteries. He found hypertrophy of the muscular layer, which he regarded as a secondary effect of the hypertrophy of the heart muscle. This hypertrophy of the muscular coat of the vessels was claimed by Johnston in 1868, and he was supported by Waller. Other observers denied the presence of any hypertrophy. Conheim did not believe this hypertrophy of the arterioles as frequent as Ewald claimed.

The theory of hypertrophy of the muscular coats of the vessels, in connection with Conheim's theory of the production of high tension, furnishes what Loomis claims to be the most plausible explanation of increased arterial tension, and cardiac hypertrophy in acute parenchymatous nephritis, and in any instance where vascular changes are secondary to kidney disease. Conheim assumes that the circulation of the kidney varies according to the amount of excrementitious substance in the blood, and that the functional activity of the renal ephithelium is dependent on the amount of blood passing through the kidney. The ratio between the kidney activity and the waste products in the blood will be lowered by any loss of activity in the glandular elements. The flow must then be increased in order that the total excretion be not diminished; this is accomplished without disturbance of the general circulation, by increased heart action, and general arterial contraction, which contration must vary according to necessities. This requires the action of the sympathetic system, and a varying contractile element in the vessels, which can only be supplied by the muscular coat.

Loomis thinks that excessive production of uric acid and other waste products, in connection with deficient hepatic function, in either inherited or acquired diatheses, may be the inception of pathological changes ending in granular kidney, and vascular disease. He considers that cardiac hypertrophy in nephritis must develop in one of three ways; either as the result of fibroid arterial change,

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and bearing on etiological relation to the nephritis, or as a compensatory condition to renal obstruction in cirrhosis of the kidney, or any form of nephritis causing obstruction, and in direct ratio to the amount of obstruction in the entire systematic circulation; or, lastly, as a physio-pathological condition related to nephritis simply through the sympathetic system, and directed toward increasing the functional activity of the kidneys. This latter is evidently based on his acceptance of Conheim's views of increased tension. Senator claimed that there were two forms of cardiac hypertrophy in renal diease; i. e., eccentric hypertrophy, occurring in chronic parenchymatous nephritis, and resulting from the constant overloading of the blood with urea; and a simple hypertrophy occurring in contracted kidneys, and in which the renal disease might be considered as depending on the cardiac hypertrophy, from implication of the smaller renal arteries.

Conheim denies the anatomical correctness of Senator's statement and claims to have frequently seen eccentric hypertrophy, or even complete bucardia in contracted kidney, and says that simple hypertrophy is more common in chronic hemorrhagic large nephritides than in eccentric hypertrophy. This latter statement appears very wide of the clinical fact, and is objected to by Fraentzel. Conheim's statement relative to the cor bovinum in contracted kidney causes the impression that there may have been failure to recognize a condition of hypertrophic dilation occurring as a sequence to simple hypertrophy in contracted kidney, of which condition it is a legitimate successor.

Fraentzel, however, agrees with Conheim as to the incorrectness of Senator's statement. Fraentzel explicitly states, that according to the degree of tension, the heart may from the first be able to perform its task without dilatation—simple hypertrophy; or, may not be, and will then first dilate, and then hypertrophy, the extent of the dilatation being proportionate to the increase in tension. He concedes the truth of Traube's statements relative to increased aortic tension, and subsequent hypertrophy in contracted kidney; that the increased tension precedes the hypertrophy, he thinks admits of no doubt. He does not believe that either Traube's or Conheim's theory in regard to the production of high tension can be maintained. He considers the increased tension due to ptomaines formed as a result of the renal disease, and retained in the blood, the intimate nature of which we are not acquainted with. Loomis says, that the fact that contracted kidney is so much more often associated with cardiac hypertrophy, than is chronic parenchymatous nephritis, is sufficient evidence

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that arterial obstruction due to fibroid disease, offers much more resistance to the circulation than can possibly result from sympathetic contraction, no matter how extensive arterial muscular hypertrophy might be. The more rapid degeneration and failure of the heart which accompanies parenchymatous nephritis, cannot be explained by failing nutrition from over activity or obstructed coronary circulation. He believes, therefore, that in cirrhosis, cardiac hypertrophy is developed in exact accordance with the amount of mechanical obstruction to the circulation, except where from malnutrition such development is impossible; also that cardiac degeneration and dilatation depend on systemic poisoning from urinary poisons, consequent on decrease in the functional activity of the renal epithelium. This is in accord with Senator's views before mentioned, that the hypertrophy of parenchymatous nephritis is eccentric, while that of cirrhosis is simple, which would indicate an accompanying cardiac degeneration in parenchymatous nephritis.

These various views, although somewhat conflicting serve to bring out strongly a few points which will soon impress themselves on the clinician who has much to do with this class of diseases.

It is to be observed that nearly all writers on this subject speak only of cardiac hypertrophy as connected with nephritis, and say nothing of degeneration and dilatation. The statements of Senator's, Strümpel, Fagge, and others, to the effect that we now recognize the fact that cardiac hypertrophy may occur in parenchymatous nephritis, as well as in contracted kidney, would indicate that while recognizing the cardiac involvement, the line was not strictly drawn between hypertrophy and dilatation, or the sequence in the production of these conditions.

That left ventricular hypertrophy is a more or less constant attendant on interstital nephritis cannot be denied; it would appear that the frequency of its occurrence as stated by Bright, was not much overestimated. As to the cause of the hypertrophy, it soon becomes apparent to one who deals with these cases, that they cannot all be classed alike, except as to the fact that increased vascular tension is directly responsible for the hypertrophy. Whatever view we may accept as to the cause of the increased tension, the fact soon develops that it will not answer for all cases. If obliteration of the vessels of the kidney were all that is necessary, then every case of kidney disease obliterating the vessels should cause hypertrophy, as also should removal of the kidney, which Rosenstein has shown is not the case. Beckman, though, has seen hypertrophy follow ligature of the ureter in a dog.

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Abolition of the function of one kidney, even though fully compensated for by the other organ, as far as secreting the normal amount of urine is concerned, may cause hypertrophy, as was demonstrated to me by a post-mortem examination made on a patient who died from degeneration and dilatation of the heart, following long standing left side hypertrophy. During life there was no apparent cause for the hypertrophy; at the autopsy the left kidney was found firmly contracted and weighed one and one-eighth ounces; it had not excreted any urine for some time, which accounted for the absence of symptoms of kidney disease in the urine. The right kidney weighed eight ounces and was healthy in appearance, the systemic vessels showed no signs of the disease.

In all classes of cases where fibroid disease of the arteries is not present to explain the obstruction to the circulation, it seems necessary to assume the retention in the circulation of some urinary poison, which, through the nervous system affects the vessel, demanding more work from the left ventricle.

We may accept as proved the statement of Loomis that hypertrophy in sclerosis of the kidney is developed in direct ratio to the amount of mechanical obstruction to the circulation, but it is not patent why this mechanical obstruction should develop in cases which are not associated with arterial disease, unless we invoke the action of some urinary poison. In that class of cases in which fibroid disease of the arteries is so marked a feature, the mechanical obstruction to the circulation furnished by the less yielding vessels, sufficiently explains the hypertrophy, whether there is or is not co-existing nephritis. Galabin found several instances of moderate hypertrophy in arterial sclerosis without nephritis. The conflicting opinions expressed by Johnson, Gull and Sutton, Ewald and others, in regard to disease of the middle and external arterial coats in the smaller arteries, particularly, and the relation of such changes to nephritis have never been fairly settled; as far as the vessel is concerned, they offer increased mechanical obstruction to the flow of blood, added to which is the effect on the cardiac nutrition of the retention of urinary poisons. It is not plain to me how the arterial hypertrophy could take place as antagonistic to the cardiac hypertrophy. There are certain cases of arterial disease associated with nephritis, in which spasmodic contraction of the arteries exerts a marked influence on the production of cardiac dilatation, by suddenly increasing the pressure in the ventricle, causing dilatation much quicker than could possibly result from actual failure of the dynamic force of the cardiac muscle.

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Loomis has called attention to the universal omission of cardiac degeneration and dilatation from the discussion of this question. He considers degeneration, dilatation and failure, rather than hypertrophy, as the characteristic lesion of the heart as associated with renal disease per se and from a clinical view one is impelled to adopt this side of the question, not only because a large proportion of the cases which present themselves are characterized by the weak, ill-defined, diffuse apex beat, the arythima, dyspnea and dropsy indicative of asystolism, but also, because many cases of acute parenchymatous nephritis exhibit from the beginning such symptoms rather than those of hypertrophy, and where they cannot be considered as sequences to an hypertrophic state, because sufficient time has not elapsed for them to develop in such a manner.

An illustrative case was under treatment at my clinic last spring. A girl ten or twelve years of age, previously healthy, had suffered, four months previous to her advent at the clinic, from an attack of scarlatina, which was followed by scanty, high-colored urine, and dropsy of the feet; she developed dyspnea, and the dropsy increased; she presented herself mainly on account of the dyspnea, which was severe; she was unable to lie flat, could walk only very slowly and with difficulty, had a severe cough; her urine scanty, high colored, contained about one-third albumen, and some casts, sp. gr. 1028. Her lower limbs were much swollen, the skin had burst over lower third of left tibia, and serum was oozing; face rather cyanotic, lower third of lungs edematous. The heart was very much enlarged, extending from one inch to the right of right sternal margin to two inches outside of left nipple line, apex below sixth space. The action was very arythmic, and considerable motion was communicated to the chest wall. She made marked improvement under treatment.

In this case the time was too short to develop such a condition in any other way than through lesion of the cardiac muscle itself. You will here recall Senator's statement, that the hypertrophy of parenchymatous nephritis is eccentric, from which we infer that he recognized a degeneration of the heart muscle which accompanied the kidney lesion. In considering the actual position of hypertrophy and dilatation in connection with this subject, it is necessary to recognize that the term simple hypertrophy can only be used in a relative sense. Whether we agree with Fraentzel or not when he claims that simply hypertrophy cannot be diagnosed by physical exploration, and that any enlargement exceeding a few lines in extent, and capable of diagnosis, means dilatation of

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the cavities, we must admit that any considerable enlargement of the muscle, and increase in its pumping forces, will be accompanied by some increase in the size of the cavities; but relatively considered, to that kind of enlarged heart where hypertrophy is compensatory to dilatation, whether the latter results from excessive intraventricular pressure, or from loss of dynamic muscular force, the use of the term simple hypertrophy may be admitted, and in this sense the claim of Senator seems reasonable, moreover, it is the only way in which the early appearance of dilatation in parenchymatous nephritis can be explained.

Cardiac enlargement due to resistance in the vascular tract, pursues practically the same course as that due to aortic stenosis, providing the kidneys are functionally competent, and dilatation will not result except through nutritive failure, and degeneration of the cardiac muscle. This requires time, and in chronic nephritis is the legitimate sequence of the compensatory hypertrophy. On the other hand in parenchymatous nephritis, hypertrophic dilatation is an early manifestation in many cases. There is early loss of muscular power in these cases upon which the dilatation depends more than upon increased tension. That this loss of muscular power depends on degeneration of the muscle due to retained urinary poisons, seems most probable. That we do not fully understand the nature of chemico-physiological relation of these substances does not invalidate this position.

It is probable that a more complete knowledge of these very complex substances, and their effect on the general circulatory system, as well as upon the nervous system, would clear up many difficult questions. Fraentzel's assumption that certain ptomaines resulting from renal disease cause increased tension, and secondarily cardiac complications answers very well for certain cases, but unless the etiological relation of these poisons is extended under certain conditions directly to the heart itself, the theory is unsatisfactory. Clinically it is important to define the exact nature and stage of cardiac complications in nephritis. Hypertrophy, nature's compensatory and conservative process, has received entirely too much attention, and its sequences, resulting in cardiac failure; or the corresponding physicial conditions occurring in parenchymatous nephritis, altogether too little. Most of the cases coming under my observation present the conditions of dilatation and degeneration, and it is important to determine whether these are primary, as far as the heart is concerned, or the sequences of a primary hypertrophy. Careful investigation of the state of the kidney, will of course, do much toward helping our

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diagnosis, but we must remember that it is possible to have in a case of chronic nephritis with cardiac hypertrophy, an acute parenchymatous nephritis supervene which may determine a more rapid degeneration and dilatation of the heart, than would result were the chronic process in the kidney to pursue its course undisturbed.

The differentiation of such a condition from cardio-ataxia occurring as a sequence to long standing hypertrophy in chronic nephritis, is not as easy as it appears, unless a more connected history is obtainable than is generally the case. It is all important because on our diagnosis of these conditions will depend the correctness of our estimation of the dynamic integrity of the cardiac muscle; and therefore, the direction and success of our therapeutics.

In considering the nature of the relation of cardiopathic conditions to morbid states of the kidney and vascular system, in the light of our present diagnostic methods and pathological knowledge, it might seem strange that hypertrophy should for so long maintain its position as the principal cardiac lesion associated with Bright's disease. This is accounted for by the fact that not until a comparative recent period, was there any special effort made to distinguish between hypertrophy and enlargement from other causes, except in a theoretical way.

The greater attention given the clinical history, and pathological changes in this class of cases, which may be said to have begun with Stokes, and as carried out by such observers as Fraentzel, Leyden, Ott and others, has resulted in a definite distinction being made clinically, between hypertrophy and dilatation. The unqualified term of hypertrophy of the heart, as used in connection with kidney lesion, should be replaced by the general term of enlargement of the heart, as used by Fraentzel. This would include the various forms of enlargement occurring in all forms of kidney disease.

Hypertrophy, strictly speaking, is not a diseased condition; it is not, or should not have, any therapeutical interest; it is not to be treated, does not demand treatment. Until degeneration or dilatation, or both shall appear, medication, as far as the heart is concerned, is superfluous. We may treat the patient in order to keep up nutrition, by medical, physical, hygienic, and dietetic methods, so as to prolong the period of compensation as long as possible, but to treat the hypertrophy—never.

Any patient whose heart is incompetent, has something more than hypertrophy, and it is not until these secondary conditions

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arise that the physician is called on for aid, or if the patient be under treatment before this period, medication to the heart is not demanded. Therefore, from a clinical, pathological, and therapeutical point, degeneration and dilatation of the heart in connection with kidney lesions, are of more importance than hypertrophy, and the more comprehensive term by which to designate the cardiac complications of kidney disease, without specification of their exact nature, is enlargement. I do not wish to be understood as overlooking the part filled by, or the importance of hypertrophy in renal disease, but rather as indicating the greater diagnostic and therapeutic interest attached to these other conditions, and that they have not in the past received the study and consideration which their importance deserves.

VENETIAN BUILDING.

IS MEDICINE A SCIENCE?

BY DR. EDWIN J. KUH, CHICAGO.

Science may be defined as knowledge gained by systematic observation, experiment and reasoning. These three conditions are indispensable in all those sciences which deal with natural phenomena. So long as medicine dealt with only two of these conditions, namely with observation and reasoning, it was merely an empirical discipline, swayed by the teachings of men and schools. However, as soon as medicine incorporated the third of these conditions, namely experiment, she affiliated herself with the natural sciences, and became one with them.

Now we all know that the natural sciences, such as physics, chemistry, botany, zoölogy, and so forth, are not exact or mathematical sciences, such as pure mathematics, astronomy, or certain branches of physics. In mathematics the truth of to-day is the truth of to-morrow. In the other sciences the truth of to-day may be modified to-morrow. This does not imply that the science is at fault, but that our understanding and interpretation of the phenomena of science are defective. A science is therefore not anything complete, positive or final. We ultimately reach a goal on which is inscribed "Ignoramus." This goal recedes from day to day and from fact to fact. Far beyond is another goal touching infinity and reaching into eternity; on this goal a German Professor has inscribed the word "Ignorabimus."

Presented before the Sunset Club, Chicago, Dec., 1892.

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Having defined what we wish to have understood as science, we shall now consider what we wish to have understood as medicine.

Medicine concerns itself:

1. With the study of structure and functions of the living organism. 2. With the disturbances of these structures and 3. With the causes, prevention and cure of these disturbances. The study of the structure and function of the animal body, as embodied in anatomy and physiology, need not be dwelt upon here, except in so far as to emphasize that their progress is entirely dependent upon and due to that of the natural sciences. To none of them do we owe quite so much as to physics, which has given us the microscope, an invention which in its ultimate usefulness to mankind will probably rank second to only one other, namely, the discovery of the artificial production of fire. It has surely occurred to you that some unknown prehistoric savage, little better than the wild beasts around him, must have invented fire, and is therefore the father of civilization. I believe that the ultimate results of microscopic investigation will have almost as universal a protecting influence over humanity, which growing centralization must ultimately have threatened with extinction.

We can date modern medicine from about the year 1837, when Theo. Schwann first announced that all living organisms were aggregates of cells. The complex structure of man being simply a multiplication and differentiation of the same cell structure as pertains to the ameba vegetating in a ditch, or of the moss on a rock. This work combined with the growth of physiological research established the certainty that the functions of the body consisted in various physical and chemical attributes of cells. The disturbance of these attributes constitute disease. The cellular pathology of Virchow published in the forties and fifties of this century has established the knowledge of definite changes in these cells, tissues and organs, corresponding to the nature of the disease. Hundreds of thousands of post-mortem examinations have shown the constancy of this relationship. In a given disease, you always have given anatomical changes.

The recognition of these organic changes during life was elevated to a science by the introduction of instruments of precision, such as the stethoscope, which our friend Dr. O. W. Holmes calls a spyglass for looking into people's chests with your ears, the medical thermometer, mirrors for illuminating the interior of the eye, ear, throat, bladder, stomach, etc., the analysis of urine, etc. I will confess that the gastroscope, or apparatus for illuminating

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the interior of the stomach will bear further improvement, but I can say this much for it, that I have never yet met with a corpse who objected to its application.

In this manner we have most accurate and objective methods of recognizing disease. The physician versed in pathology pierces the body with his mental eye and follows the physical and chemical changes in the most hidden organs with the same clearness as if the unseen machinery were spread out before him.

There are few conditions which baffle the diagnostic acumen of the skilled physician; it is a notorious fact that doctors never make mistakes, and if they do, why then we always have a post-mortem to fall back upon.

We have now considered the structure and functions of the living organism and the disturbances of these functions and structure; we shall now inquire into the causes, prevention and cure of these disturbances.

The majority of, or at least the most important diseases are of an infective or contagious nature. They are communicated either from person to person, or enter the body with our food and drink, or are inhaled. Another large group of diseases is classified as surgical infections.

You will probably have anticipated me in understanding that it is of the diseases of germ origin of which I shall now speak. The knowledge which we possess of the relation between microörganisms and disease, is, although of most recent origin, the most exact and positive of which medicine can boast. The manner in which this knowledge originated teaches us so valuable a lesson of the intrinsic value of every purely scientific addition to knowledge, regardless of any thought of ulterior practical adaptability, that it will repay us to consider it in detail.

Between the years 1830-1860 the question of spontaneous generation, or abiogenesis, which had agitated the scientific mind for centuries, became a burning issue. It was contended by the adherents of the theory that the minute organisms which are found swarming in fermenting or putrefying substances originated in them spontaneously, that is, that they were not necessarily derived from a parent, but originated through certain molecular changes in the substances containing them. It was also claimed that fermentation and decomposition were chemical and not biological processes. The investigation of these thirty years, which culminated in the proof that fermentation and putrefaction are caused by microörganisms, represents one of the most beautiful and inspiring pages in the history of science. Such men as Schwann, Helm-

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holtz, Tyndall, Pasteur and innumerable others participated in and completed this work. Its results may be summed up in the doctrine that fermentation and kindred phenomena are impossible without the advent of certain organisms, microscopic in size, which float in the air, generally adhering to dust, settle in these substances and propagate. The leavening of bread, fermentation of wine, beer and milk, the putrefaction and decomposition of all organic material, were shown to be caused by various microörganisms, each having its own distinct biological characteristics.

This work of a purely scientific nature, without any utilitarian tendencies, is the basis of all modern research on the relation between germs and disease. The English surgeon, Joseph Lister, with an intuition bordering on inspiration, showed that the festering of wounds and the various fevers and infections incidental to surgery, were phenomena analogous to the disintegration of organic material; and that they were similarly caused by the settling of bacteria on wounds.

It is not my intention to sing the praises of modern surgery. To the physician in active professional life it has become a trite subject. You all know that tens of thousands of lives are saved annually by the prevention of surgical infection; that our hospitals are the exact reverse of that gloomy picture drawn by Dante in the twenty-ninth canto of the Inferno, when he says: "Then many a dart of sore lament assailed me, headed all with points of shrilling pity, that I closed both ears against the volley with mine hands. If each lazar house had heaped their maladies all in one foss together, such was the torment; dire the stench, as issuing from festered limbs."

You also know that the appalling harvest of death which associates maternity with puerperal fever has almost been wiped out of existence. The boldness, but not the success of modern surgery is exemplified in the following dialogue which can be found in a little book of jokes on the doctors: "What is on that plate? That is a tumor; it is a very large tumor; it weighs 112 pounds; the patient weighed eighty-eight pounds. Was the tumor removed from the patient? No, the patient was removed from the tumor. Did you save the patient? No, we did not save the patient but we saved the tumor."

The scientific magnitude of this work, immense as it is, is comparatively small when compared with further developments in germ research. It is mainly due to Robert Koch and his scholars that this work has reached its present universal and undying importance. In April, 1882, Koch published his discovery of the tubercle bacil-

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lus; he demonstrated the constant presence of a specific germ in all cases of tuberculosis, or consumption. He studied the biology of this germ, demonstrated that it occurred in no other disease but tuberculosis; he cultivated it outside the body; he showed that when inhaled or inoculated it would always cause the disease, and that the expectorations of consumptives swarmed with the bacilli. The phlegm of consumptives dries where it is deposited, mingles with dust, is whirled into the air, and by being inhaled propagates the disease. In sick rooms of consumptives the germ was found adhering to the walls, articles of furniture, and to the linen of the patients. This will explain why tuberculosis can decimate families, and shifts the theory of the heredity of consumption to the science of the contagiousness of consumption. For thousands of years mere bedside observation failed to establish the infectiousness of this most important of all diseases.

These classical researches gave a new and powerful impetus to germ research; it has been found that pneumonia, erysipelas, diphtheria, Asiatic cholera, typhoid fever, influenza and a host of other diseases, are due to a specific germ. Now, do you recognize the fertility and inspiration of such scientific methods? Do you recognize how each new truth becomes parent to a newer and grander one? Compare with it Jenner's immortal discovery of vaccination. It had no antecedent and for a century it stood alone like a flower in the desert.

At present each discovery is the logical outcome of a preceding one, and our science would march on, even if we had the misfortune to lose our Virchows, Pasteurs and Kochs.

Many of the scientific works in which these investigations are embodied, representing the highest standard of human intelligence, remind one of the masterpieces of literature and art. I have felt the same thrill in reading Koch's second work on Tuberculosis, as when I stood before the Sistine Madonna, or in hearing the ninth symphony, or in reading the words of an Homeric song. All these results of modern medicine would have been unattainable but for experiments on animals. Those well-meaning, but misguided people, who would see vivisection suppressed, would bring medical progress to a standstill, if they succeeded. The only logical outcome of the antivivisection movement is vegetarianism, for is not the slaughtering of animals the worst kind of vivisection? They also forget that there is a large class of honored men who vivisect human beings; these bad men ride in carriages, are considered benefactors of the human race, and go by the name of surgeons.

Since the knowledge of the nature and origin of disease has

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become science, the study of the prevention of disease, or hygiene in the broader sense, has become one of the strongest factors for public good. Hygiene is really the true end and aim of medicine. A doctor to whom medicine means nothing higher than simply driving around and writing prescriptions and having houses fumigated is rather a small potato. It is true this doctor may rescue a patient, but a scientific truth may rescue humanity.

Take for instance the discovery of the germ of consumption: it has shown how to wipe out a disease which annually kills 5,000,000 of our fellow beings, or one-seventh of the mortality of the earth. It has shown that the germ of typhoid fever lives in our drinking water and that every case of that disease is preventable. Chicago had a mortality of about 2,000 souls from typhoid fever last year, which signifies about 15,000 cases. The cholera would now be sweeping over our continent if Koch had not discovered the comma-bacillus. Preventive medicine has furthermore shown us how to disinfect. You all know of examples of children, who were removed from houses infected with scarlet fever and diphtheria, and upon their return were stricken with the same disease. This is because we did not understand disinfection. It is now known that fumigation is almost inert as a germ-killer, and dangerous, because it lulls people into a feeling of false security. It is being replaced by efficient methods.

The successes in modern surgery are, as I have already explained, really based on preventive medicine. It is also becoming more and more apparent that the inflammatory diseases of the throat and chest are not due to the old bugbear of catching cold, but to the inhalation of infective agents clinging to the dust we inhale. Pneumonia, the mortality from which is second only to that of tuberculosis, is a disease which we inhale. It will become the task of municipal legislation not only to protect our food and drinking water, but the air we breathe. Street cleaning is not only an ornamental proceeding for the World's Fair, but a necessary precaution against our epidemics of pneumonia. It is both a disgrace and a glory that women should be pioneers in this agitation.

I shall now touch the last question in my paper, namely, the cure of disease. Is therapeutics, or the curing of disease, a science? In the sense of my definition, that science is knowledge based on systematic observation, experiment and reasoning, it is most emphatically a science. But I shall meet all opposition to this statement half way, by declaring that our methods of curing disease are, although scientific, crude, imperfect and rudimentary; not rudimentary as to age, for the healing art is necessarily as old as the

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human race, but rudimentary as a science. I wish, at the outset, to disabuse your minds of the impression that curing of disease is necessarily associated with the exhibition of drugs. Drugs are either given because they occasionally cure, or because they fulfill certain symptomatic requirements, or because the patient, a victim of atavism, wants them. Drugs rarely cures an infectious disease. When given judiciously, they simply assist in effecting a cure. The diseases of germ origin, with but few exceptions, run their course in defiance of medication. The doctor who would make you believe that he can cure, that is, abort an attack of pneumonia, or typhoid fever or scarlet fever, is not telling you the truth; he is a fraud. But this limited efficacy of drugs ought not to provoke a sneer. The best observers of all times have stranded on this rock. The subject simply transcends human knowledge for the present. We have most excellent scientific knowledge of the effects of drugs. but they will not cure the majority of infectious diseases. I shall consider this paper to have been read in vain, if I have not succeeded in showing you that the essence of medicine does not consist in prescribing medicines. The perscription blank is not emblematic of our science.

I have frequently been confronted with the question: Doctor-do you belong to the new or old school of medicine? The ladies have been particularly solicitous and worried on this point. In other words they meant: Are you a superanuated remnant of fossilized antiquity, or do you march under the triumphant flag of homeopathy? I should like to utilize this opportunity to explain the situation. It would of course be incompatible with the character of medicine as a science, if it really divided into schools. You know that homeopathy is based on the teachings of Hahnemann, whose system can be briefly outlined as follows: Disease is to be regarded as consisting essentially of symptoms. It is in no case caused by any material substance. Their cause is therefore not perceptible to the senses. He held that nearly all chronic diseases were due to an internal itch. It is an essential part of his teachings that nature is a bad physician and not to be much trusted. That drugs are the real curative agents. That drugs given to healthy persons have a power of producing symptoms of disease. His great therapeutic doctrine was to the effect that there is a correspondence between the symptoms produced by any given drug administered to a healthy person, and its power of curing any given disease. Or, in other words: Similia similibus curantur. Attenuation or dilution of medicines, he claimed, developed the spiritual power which lies hidden in the inner nature of medicines. He

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claimed that for curative purposes medicines became more powerful as they became more attenuated, or diluted. In other words, ink will get blacker, or whisky will develop more spiritual power the more water you put into it. He wrote in 1833, that he could scarcely name one disease which he and his assistants had not treated with the most happy results, solely by olfaction, or smelling at remedies. As I understand it, homeopaths have been drifting away from these teachings. They call this drifting away evolution. As I understand from leading druggists in this city, doctors of homeopathy and professors in homeopathic colleges walk into drug stores and buy phenacetine, iodide of potash and calomel by the ounce. I need not tell you that the use of these drugs in these quantities is entirely subversive of the doctrines of homeopathy. I have been repeatedly called in consultation with homeopaths and have found the utmost willingness to accept and carry out any medical suggestions which I found fit to make. In fact, I have frequently found myself anticipated in this regard.

Another illustration of the beautiful harmony which homeopathy feels toward regular medicine has lately occurred, let us say in Timbuctoo, in the case of the serious illness of one of the brightest and most congenial homeopathic professors, who had a regular physician in attendance. Do you now understand the secret of homeopathic success? Do you now understand why homeopathy is still flourishing? There is a story of a man who was holding on to a bear's tail and wished that somebody would come along to help him let go. Do you see the analogy? What I wish to emphasize particularly about this so-called school in medicine, is the immorality of adhering to a name because it is fashionable and lucrative, after the principles for which it once stood have long been deserted. In this connection, I should also like to ask for one immortal name, or one immortal discovery this parasitic itch doctrine has ever given to the science of medicine.

I have now reached the conclusion of my remarks. The subject was approached with a feeling of humility and reverence. Science is a shrine which only the cleanly dare approach. I have attempted to make no pretensions for the science of medicine which it does not possess. Knowledge does not make us proud, it humbles us into the dust. I have no respect for the physician who has not wrung his hands in anguish in those solemn moments when he is taught to feel that our inadequate knowledge cannot recall a precious life which is oozing away. Let us, therefore, welcome every ray of light thrown on the darkness of our ignorance. Let

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us welcome every truth for its own sake. Let us remember that the stars were not created merely for the mariner's compass.

3125 MICHIGAN AVE.

EXOPHTHALMOS ASSOCIATED WITH NEPHRITIS.

BY HAROLD N. MOYER, M. D.

So far as my experience extends I have never seen a case of exophthalmos associated with the ordinary phenomena of nephritis, nor have I seen such a case reported in the literature accessible to me.

T. H., aged forty years, a laborer presented himself at the clinic for nervous diseases of the central free dispensary. The most noticeable thing in his condition on first examination was the extreme degree of exophthalmos. He stated that he had been perfectly well until seven months before coming under observation. At that time his health began to fail, he had pain in his back and marked loss of strength. So far as he knew there was no especial cause for this condition, is temperate, and prior to present trouble never had any serious sickness or injury.

The patient is thin, skin is sallow, and he has lost about ten pounds in weight, since beginning of present illness. His appetite is fair but within the last few weeks has vomited frequently after taking food. Examination of lungs negative. Heart is markedly

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hypertrophied. The apex beat is at the upper border of the seventh rib, eleven centimeters from the median line. The heart sounds are loud and snapping in quality but there is no murmur. Auscultation over the root of the neck and large vessels does not give any abnormal sounds. The pulse is very hard, the radial artery can be seen and felt, as high as the middle third of the forearm. At the point where the radial pulse is usually examined the artery is curved so as to make nearly a half circle. Urine is scanty in quantity, light colored, contains a few granular casts and a small quantity of albumen.

The eye symptoms came on about two months ago, when there was some pain especially over the left orbit. With the onset of these symptoms there was a loss of vision, which has gradually increased until now the patient is unable to distinguish persons, cannot count fingers, but distinguishes when a shadow falls upon the eye. He can avoid objects in a room when getting about. The movements of the iris are restricted, though there is some reaction to light. The excursions of the eyeball are greatly restricted by the exophthalmos, but there is no paralysis of any of the extrinsic ocular muscles. The eyes can be readily replaced by slight pressure. There is no increase of tension and no pulsation is felt. The ophthalmoscope shows a mass of exudate in each fundus, obscuring the disk and vessels, but none of the whitish markings so common in Bright's disease. There were no symptoms of disturbance in the nerve centers. Coördination not impaired, sensibility and motility intact. The deep reflexes were somewhat exaggerated, but symmetrical.

Analysis of the clinical history, which was somewhat imperfect owing to the limited intelligence of the patient, would show that we had originally a case of nephritis, with secondary involvement of the heart, and the usual changes of the arteries, only to a much greater degree than I have ever before observed. It is possible that the enormous resistance in the peripheral circulation and the consequent tortuous condition of the arteries may furnish an explanation of the exophthalmos. Another interesting point is that the condition of the retina is strikingly like that observed in cases of cerebral tumor, and differs very much from the ordinary retinal changes of nephritis.

OPERA HOUSE BLOCK.

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THE

CHICAGO MEDICAL RECORDER.

Journal of the Chicago Medical Society.

Drs. JOHN A. ROBISON, WILLIAM T. THACKERAY, EDMUND J. DOERING,
Committee on Publication.

Dr. ARCHIBALD CHURCH, Editor for the Committee.

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Society Proceedings.

THE CHICAGO MEDICAL SOCIETY.

Regular Meeting at Washington Ha.' December 5, 1892.

The meeting was called to order by P. sident HOTZ.

The Secretary being absent, DR. ARTHUR R. REYNOLDS was appointed Secretary pro tempore by the President.

The minutes of the preceding meeting were read and approved.

The Committee on Membership reported favorably on the applications of Drs. Della R. Nichol, 473 Ogden Ave., Alfred Scofield, 4249 Calumet Ave., and H. H. Brown, 390 N. Clark St., and on motion, the Secretary cast the ballot of the Society for their election.

The application of Dr. Eugene Martin was read and referred to the Committee on Membership.

Dr. N. SENN reported a case of "Carcinoma Developed in the Scar of a Laparotomy,"

Dr. G. FRANK LYDSTON read a paper on "So-called Urethral Fever." (See page 10).

Dr. NICHOLAS SENN: I can hardly conceive that we should make a difference in dealing with urethral wounds and wounds in any other locality. I am, therefore, of the opinion that the proper classification should be from a bacteriological standpoint, and from

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that I can only conceive of three principal varieties: First, a sapremia—the introduction of a preformed toxine, which may be the product of decomposition of urine, but is always the outcome of a putrefactive bacillus. In this case I should expect the manifestation of symptoms very shortly after the instrumental interference; if there is chill it will follow in a short time because there is no period of incubation.

The second I should look on as the preseptic urethral fever. In this case I should expect a period of incubation varying from a few minutes to a day or more. In such cases I take it for granted that the microbes are always pus microbes, and are introduced either from without or from within.

The third variety, and the one least frequently met with, is the pyemic form of septic fever, and it means here the same as in any other locality, the primary infection of one of the veins followed by the formation of a thrombus, and softening of the thrombosis brought about by the pus microbes and the characteristic dissemination of the pyemic product causing the metastatic abscesses. These two conditions of course may be combined and you have a fourth class, a septico-pyemic infection.

Dr. Edwin Pynchon: I have for some time had in mind a method which it seems to me would very often avert this complication. It is the principle of continuous irrigation; if a small sized soft rubber urethral catheter were introduced into the deep urethra and a solution, for example, of boracic acid of proper temperature allowed to continuously flow for five or six days, it seems that it could do no possible harm and would undoubtedly prevent the coming on of any of the described forms of septic urethral fever.

Dr. Archibald Church: Dr. Senn made a very important remark in regard to eliminating from this category entirely those nervous manifestations which immediately succeed the passing of an instrument into the deep urethra. That this is capable of setting up such nervous manifestations has perhaps fallen within the range of observation of every one here. Recently in my office a young man who was being examined for a condition that might at one time have been denominated spinal concussion, and who previously had had several attacks of what was called retention of urine, upon the passage of a sound went into as fine an hysterical convulsion as I ever saw, and this was followed by anuria of three days' duration during which there was no considerable quantity of urine in the bladder, demonstrated by palpation and percussion, and which gave way to copious colonic flushing. In this case the irritation in the urethra was sufficient to so inhibit the action of the kid-

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neys as to entirely prevent their function for a considerable period, and under that condition one might readily suppose uremic states would follow. Convulsions, anuria, shock and many other manifestations may occur upon the passage of an instrument, but these conditions are reflex, and always follow promptly after the instrumentation. The elimination of this class of nervous manifestations from urethral fever I think should be insisted upon.

Dr. M. L. HARRIS: Normal urine is nontoxic, except in excessive quantity, and when it becomes toxic it is the result of decomposition from bacterial infection, hence I think the author's division of urine fever might be eliminated.

Cases of slight nervous shock following instrumentation of the urinary organs are familiar to all, but death from this cause has not been demonstrated to occur except where the kidneys are diseased. Uremia may follow operations on the urinary organs the same as it may follow operations on any other part of the body, when we have diseased kidneys, not otherwise. These cases should be differentiated and classified under the head of uremia. The remaining classes might all be put under the one division of sepsis which may be further subsided as has been done by Dr. Senn. These cases present a period of incubation which, however, may be very short, as death has occurred inside of twelve hours, a bacteriological examination at the autopsy showing the urethra and bladder containing almost a pure culture of pyogenic bacteria. A post-mortem bacteriological examination of twenty-five cases, the subject of a thesis by Albarran before the Paris academy in 1889, showed as follows: In sixteen cases pyogenic bacteria alone were found; in seven cases pyogenic bacteria, accompanied by a short, slender bacillus, and in two cases pyogenic bacteria with a streptococcus. In all the cases the ordinary pyogenic bacteria were present.

In conclusion then I would make of this subject but three divisions as follows: First. Nervous cases. Second. Uremia cases. Third. Septic cases.

Dr. S. L. WEBER: According to the teaching of the science of to-day, I think we are bound to hold all urethral fever following the passage of a sound and accompanied, or followed by a chill and rising temperature, as septic. We must remember that we pass sounds not in the healthy urethra or bladder. And in case any lesion, no matter how slight, is made in the urethra by the sound, and we always must use same force in passing the sound in these cases, we have there, already present, conditions favoring the production of septic infection. All the clinical evidence is par-

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allel to septic infection occurring in other places. This in these cases is already present. In the cases of urethral fever that have come under my observation and have resulted in death, the autopsy has shown that death was caused by septicemia.

Dr. G. FRANK LYDSTON: I was trying to present, in a general way, not the entire subject of so-called urethal fever, but some of the sources of error in classification. I, myself, believe that there should not be any difference in the classification of conditions due to similar causes, but those various forms of pathological disturbance resulting from varying etiological factors in genito-urinary pathology, have been known from time immemorial as "urethral fever," and I was simply endeavoring to analyze them and reduce them to their primitive elements, and show why they should not be classified as urethral fever. I practically eliminated all of the cases, except those attended by uremia, and possibly by some obscure toxemia due to absorption of toxic products of decomposition of the urine. I even went so far as to say, that if there is any disease which should be known as urethral fever, this condition of toxemia should be the one. One practical point has been ignored in this discussion, viz.: While toxemia or septic infection, in a general way, should a priori be considered as precisely the same in this location as elsewhere, unfortunately it is not precisely the same, because the wound environments are different. I do not think that Dr. Senn would claim that there are no toxic elements in genito-urinary disease independent of the septic elements per se. Certainly decomposing urine does produce toxic compounds a little different from those produced in the environments afforded by an ordinary wound in other locations. We must expect that interference with diseased kidneys or bladder will produce a certain amount of toxemia, but exactly what this toxemia consists of is more than physiological chemists have been able to inform us. We certainly cannot, in my opinion, attribute all of these cases to ordinary sepsis. If there is any justification whatever, for the use of the term "urinary fever," it is in the practical deduction that it is an excellent thing to impress upon the surgeon the special danger of sepsis or other toxemia in this particular location, and that we cannot guard against it as we can under other circumstances.

For the benefit of Dr. Pynchon I would say that I had no thought of presenting anything in regard to the treatment, but I would be very much interested in learning the results of his observations on the effects of continuous irrigation; I would not dare try the experiment on my patients.

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Dr. Harris says that slight nervous shock is necessarily transitory in its effects. That depends; a slight nervous shock in a patient with perfectly healthy kidneys may be one thing, and in one with damaged kidneys quite another matter. We may have, as the consequence of nervous shock, a general vaso-motor disturbance, and it is rational to infer that we may also have a vaso-motor disturbance of the kidney, from which the diseased organ may not react.

Dr. Weber certainly has simplified genito-urinary pathology, when he eliminates all cases except those of septic origin. He states that all cases in which operations are followed by a chill are due to sepsis per se. I think it is well known that there are a great many cases in which it is probable that sepsis per se is not the cause of death, many cases resulting in chill followed by fever, collapse, diarrhea, etc., are due to uremia, determined by the existence of acute surgical nephritis, engrafted on a chronic condition. It is hardly fair to eliminate cases of this kind from the results of genito-urinary operations, or to lump them all under the head of sepsis.

Dr. W. E. CASSELBERRY read a paper on "Abscission of the Tonsils." See page 1.

Dr. J. F. OAKS: Dr. Casselberry's paper appears to me in the light of an unnecessary alarm as to the hemorrage following upon tonsilotomy. While one fatal case is sufficient to arrest our attention it seems to me that Dr. Casselberry did not lay enough stress upon the causual element in this fatal case. I am inclined to believe that if this case had been thoroughly studied, that a history of hemiphilia would have been made out. Another point in the paper which impressed me was the line of abscission of the tonsil. Since in the normal fauces the tonsil will be seen apparently on a line with the faucial pillars, I believe that the line of abscission Dr. Casselberry recommends would be too far back, as it is not necessary to take off so much of the tonsil. Prof. Allen, of Philadelphia, considers the removal of the cortical layer only as sufficient, in case of hemorrhage it can be more easily controlled.

Another element in the hemorrhage following tonsilotomy is the adhesion we frequently find between the tonsil and the faucial pillars. I am inclined to think that if the line of abscission is made so as to involve these folds or pillars that the danger of hemorrhage is greater than otherwise.

Dr. J. A. LYDSTON: I have had some experience in the extirpation of the tonsils, and I have been led to appreciate fully the fact that dangerous hemorrhage is apt to ensue. I would suggest,

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however, that entire extirpation would be far better than abscission which implies that only a portion of the tonsil is removed, and I think this is an element in hemorrhage, the structure of the tonsil being such that when a portion of it is cut off the blood vessels are not so apt to contract. I have been in the habit for some time of using the tenaculum instead of the vulsellum forceps to draw the tonsil out so as to engage it fully and I find that by so doing in a large percentage of cases I can almost dislodge the tonsil from its bed and extirpate it entirely. In regard to the method of checking hemorrhage suggested by the paper, it is no doubt very efficient but we cannot always have a galvano-cautery at hand. Under such circumstances I have applied powdered alum directly to the parts and I find that it acts admirably. I have found that cocaine is very apt to excite hemorrhage where it would not otherwise occur. The paper failed to call attention to the age after which it is not necessary to remove the tonsils, which is about thirty-five or forty years. We should never allow a patient from whom the tonsils have been removed to lie with his head down; this position is frequently desired because after a severe hemorrhage the patient is in a state of collapse, so to speak, and the tendency is to recline.

Dr. EDWIN PYNCHON: I am favorably impressed with Dr. Casselberry's improvement, the only objection to it being that it necessitates an assistant, though tonsilotomy is a sufficiently important operation to require one. The abnormal tonsil early in life is hyperplastic, the pillars are not particularly enlarged and there is slight, if any attachment of the pillars to the tonsil, but as the patient advances in years we find the tonsil relatively diminishes while the pillars enlarge and eventually are involved and rob the throat of its proper contour. I do not believe that tonsilotomy should ever be attempted in the adult without first separating the pillars. About two years ago I read a paper before this society, on "Electro-Cautery Dissection of the Hypertrophied Tonsillar Tissue." I have put this operation in practice on a good many occasions with flattering results. I am not in favor of partial ablation but of total destruction of the diseased gland. My operation consists in using electrodes, the points of which are bent at right angles to the shaft, so by reversing them in the hand I can have a point bent either upward, downward, to the right or left. With the assistance of a toothed forceps I elevate the tonsil and separate first one pillar, then the other, and afterward dissect out the tonsil little by little until I have removed the entire diseased mass. By this process I secure

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a clean, smooth surface and get rid of the diseased tissue. One of the disadvantages of partial ablation is that it leaves a diseased base.

Dr. G. F. WELLS: I believe that the normal tonsil is practically an invisible tonsil, just as the normal lymphatics every place else in the body are barely perceptible. If the tonsils are so large as to protrude beyond the faucial lines they are very apt to give rise to pathological conditions, and in most instances should be removed.

As to the cause of hemorrhage, I think one of the speakers gave the correct explanation, that in the hardened and fibrous tonsils of adult life the blood vessels when incised are not capable of contracting. In my experience in removing the tonsils I have had very few cases of anything like alarming hemorrhage, and I always feel best when I have removed the tonsil completely. I believe that the remnant of a pathological tonsil is always a menace, and if at the first effort the tonsil has not been completely removed, and there is any considerable stump left, it will give rise to symptoms and should be removed at a subsequent operation.

Dr. B. M. BEHRENS: I have made about 200 tonsilotomies, twenty-five per cent in adults, and have never seen any alarming hemorrhage. I cannot admit, so far as my experience goes, that there is any age limitation for this operation, it depends upon what the indications are for the removal of the tonsil. I had a couple of cases of adults and they complained of noises in the ears which could not be stopped by any kind of treatment. I excised the tonsil and in both cases these symptoms in the ears stopped immediately.

As far as Dr. Casselberry's instrument is concerned, it is the Matthew without the fork; there is nothing new about it.

Dr. J. F. OAKS: I would like to ask Dr. Casselberry whether he has applied the remedy of Dr. Dawbarn, of New York, that of constricting the lower extremities.

Dr. A. H. BURR: It has been suggested that hemaphilia is the cause of these hemorrhages; I doubt this very much. When the tonsil has been long enlarged, the enlarged blood vessels when cut across cannot contract as in ordinary tissues. I have seen very severe hemorrhage in cases that were not vigorous.

Dr. W. E. CASSELBERRY, in closing the discussion said: I meant to sound an alarm, but only a "still alarm" because the physician in attendance on the unfortunate case reported, had heard absolutely no alarm; because he understood from the published

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records and from the assertions of high authorities that it was an absolutely safe operation; that death had never resulted from it, and therefore he considered it unnecessary to use more vigorous measures to stop the hemorrhage in this case. Nevertheless, with the thousands and thousands of cases that are operated on and with only one recorded case of actual death in a child, certainly the danger is very slight, so slight that it should and must be disregarded and this operation continued as in the past, with the exception that we should take all reasonable precautions to make it safer if we can, and we should know the most effective means of checking hemorrhage when it occurs.

The line of abscission is a much discussed point, and as stated in the paper, I believe it should be rather deep, only leaving a stump which should not protude much from the pillars or widely distend them. I believe this is a conservative view and it is my own practice. If it were as safe to remove the entire tonsil as three-fourths, the removal of the entire gland would be better, but it is difficult, often impossible, to remove it entirely, and if hemorrhage should then occur the bleeding points would be in the deep sulcus and difficult to reach for cauterization or other application. I cannot accord with the opinion that hemorrhage is any less apt to occur after total extirpation than after a reasonably deep abscission.

Dr. E. F. WELLS then read a paper on "The Curved Lines of Dullness in Pleuritic Effusion."

On motion, the society appropriated $300 from the treasury for the purpose of defraying the expenses of the directory for nurses.

On motion, the society adjourned.

ARTHUR R. REYNOLDS,
Secretary pro tempore.

Regular meeting at Washington Hall, December 19th, 1892.

The meeting was called to order by President HOTZ.

The minutes of the preceding meeting were read and approved.

The Committee on Membership reported favorably on the application of Eugene Martin, 697 31st St., and on motion, the Secretary cast the ballot of the Society for his election.

The applications of Drs. Jno. Flood, Jno. W. Scott, J. J. Thometz, B. L. Riese, and D. S. Harvey were read and referred to the Committee on Membership.

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The President appointed Drs. HAMILTON, DOERING and CHRISTOPHER as a Committee to act in accordance with the recommendation of the Milk Committee, made in its report of October 17th.

Dr. F. C. SHAEFER reported a case of restoration of the entire scalp by means of skin grafting and exhibited the patient. Dr. Shaefer also exhibited seven photographs and one chart.

Dr. JOSEPH ZEISLER: I should be interested to learn what the experience has been in transplanting hairy portions of the skin? This, so far as I know, is one of the most difficult tasks of transplantation. The hair falls out in a short time. I believe Dr. Morrow, of New York, has recently succeeded in transplanting hairy skin in small spots.

Dr. F. C. SCHAEFER: In reply to Dr. Zeisler, I would state that I repeatedly took skin with hair upon it, but these hairs would always die off. I took the skin of the rabbit and cut away all the connective tissues, placed it on the head, but after a few days the hair came off. I have never known a case of successful grafting of hairy skin. I remember some years ago our President made an experiment, which he might explain.

Dr. BAYARD HOLMES: I would suggest that the Doctor try portions of new born or recently dead fetuses. It is evident that this tissue would have a great deal more reproductive power than that of older persons. I have often thought that the ideal way of reproducing legs, arms and other portions of the body would be by grafting similar portions of new born, mature fetuses; and that certainly ought to be done with the skin, which is the simplest of all the tissues reproduced.

Dr. ELMER LEE: During the summer I saw a scalp which had been torn from the head of a young girl by one of the arms of an old fashion wind-mill, such as are seen in Germany. This girl had the scalp completely torn from the head, including the eyebrows, one ear, and to the extreme nape of the neck, so that there was not a hair left on the scalp. I do not know the details of the treatment, but the girl recovered.

Dr. D. W. GRAHAM: May I ask Dr. Schaefer if he would advocate pursuing this method in similar cases to-day? He makes a comparison between Tiersch's method and the one he has pursued in this case; I believe one essential principle of the Tiersch method is that it sterilizes the surface to be grafted, the granulation tissue is entirely cleaned off; and another essential principle is in covering the whole surface at one sitting.

Dr. F. C. HOTZ: Some four or five years ago a method had been suggested for the relief of partial ectropium of the lower lids by

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what I may call a retransplantation. I made the operation in one case at the infirmary, carefully cutting out a square piece and transplanting it; it took very well and healed in again, but all the eyelashes contained in the section gradually dropped out, except one, which became a very strong, thick and long hair.

Dr. F. C. SCHAEFER in closing the discussion, said: "In reply to Dr. Holmes I will state that I used tissue from a younger person in this case, but it did not grow as well as skin taken from those near her own age; whether that can be taken as a rule I do not know. It might be well to take the foreskin of babies that are circumcised and try the experiment. While there have been a good many cases similar to this, where the scalp was torn away, this is the largest surface of skin grafting upon the head I ever saw or heard of.

I would say to Dr. Graham that there are several reasons which would prevent my using Tiersch's method in beginning the treatment of a case of this kind. In the first place this was an extraordinarily extensive wound, and I do not believe there would have been the slightest chance of covering that wound at one sitting and have the grafts live. A few years ago a girl had the whole skin of the hand torn off and I treated the case by Tiersch's method in two sittings, first covering the front then the back of the hand, and she made a complete recovery, but the skin produced could not be compared to this.

The patient you have seen to-night tells me she has never felt better than she does now and has for the last few months. For the first two or three years she had more or less headache, but has not been troubled in that way for a long time. We got a better skin by using the whole derma. On the cranium there is not a superabundance of tissue, so that the time spent permitted the granulations to spring up abundantly, and was time gained for the girl; doubtless the results were better than if the granulation had been scraped off. These grafts were placed on top of the granulation tissue. I prefer this method because we can get a stronger skin and more connective tissue beneath it. I have never seen a piece of skin made by Tiersch's epidermal grafts that would sweat; I do not believe that the sweat glands are reproduced in that kind of skin, but the skin in this case positively sweats, and she told me that during the hot days of summer she had sometimes to put on two dressings a day. Another point about Tiersch's grafts is that so many are required at once that it would be difficult to get any one to volunteer to furnish them. This scalp had to

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be oiled daily for a time, but now she oils it once a month, occasionally once in two weeks.

Dr. H. N. MOYER reported a case of exophthalmos associated with nephritis. The case was illustrated by photographs. (See page 41.)

Dr. F. B. ROBINSON: I don't think it is necessary for a case of this kind to be associated at all; it may be a mere accident, or it may be that one fracture started first and caused the other through reflex action. The best views in regard to exopthalmos are that it is an irritation of the cervical sympathetic nerve. An irritation of the sympathetic nerve, or the cervical ganglia, has just as much right to disturb the kidney as the uterus, the stomach, the liver, the spleen, or the eyes.

In this case the exopthalmos may have started first and the irritation may have been transmitted down the lateral chain of the sympathetic, the splanchnic nerves, to the kidney, because the kidney is associated with the sympathetic nerve through the abdominal brain.

Dr. F. C. HOTZ: It is to be regretted that Dr. Moyer could not avail himself of the opportunity of a post-mortem, to find out whether there was anything in the brain that would account for the ophthalmoscopic appearance, which looked more like the enlarged disc of optic neuritis than the changes we usually find in connection with nephritis.

Dr. H. N. MOYER, in closing the discussion, said: I regret very much that we have not a better history of this patient, but I could not get a better one. I regarded the exophthalmos as a late condition and the kidney disease as essentially the primary trouble; the exophthalmos and retinitis coming on, at least four or five months after the beginning of the nephritis. The exophthalmus might be explained by simply an artheromatous condition of the vessels in the orbit in which the great peripheral resistance has pushed the eye outward. The retinal changes were those which are common in cases in which there is obstruction to the return circulation; in other words, more like those observed in cerebral tumor. There was vomiting, which might occur in Bright's disease or cerebral tumor. The case is very mixed, but I thought I would put it on record for what it is worth.

Regarding Dr. Robinson's remarks; it has been said that some men's brains are in their stomachs, but I do not believe that is a physiological observation of any merit. I think Dr. Robinson's published work, in so far as it relates to this subject, and the views he has advanced to-night in explanation of this case, are not well

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founded. I do not regard the sympathetic nerve as essentially different from the cerebro-spinal nerves in any of its functions. The sympathetic is simply a part of the nervous system. All of the older books and writings on this subject describe nervous structures as devisable into two systems, the sympathetic and the cerebro-spinal. There is but one nervous system; the difference between the sympathetic and cerebro-spinal nerve is that the sympathetic nerve has less of the medullated fibers, while the cerebro-spinal nerve has relatively more. If you could strip the cerebro-spinal nerve of its medullary fibers you would have the exact counterpart of the sympathetic nerve. The sympathetic nerve has no function which the cerebro-spinal nerves do not have. These conclusions have been amply attested by the work of Gaskell, and numerous other writers.

Dr. JOSEPH ZEISLER reported a case of angio-keratoma and exhibited the patient. Dr. Zeisler also exhibited a microscopical slide, a photograph and a cut.

Dr. H. G. ANTHONY: Some years ago C. Fox described a case under the term of lymphangiectasis which he supposed was a new disease. Since this disease that Dr. Zeisler has told us of tonight has been described, he states that Fox is inclined to think that the disease to which he originally called attention was the same as this. In the disease he described, the lesions were situated on the thigh and therefore differed from any of the other cases in not being limited to the hands or feet, so that Dr. Zeisler's case is not the first in which the disease involved hands and feet. I do not think that the fact that so few cases have been reported is any index to the number of cases observed, because the history of skin diseases shows that varions authorities report, after a new disease has been described, four or five cases and then stop; they observe them in the clinics and cease to report them. That was the history of Xanthelasmoidea or papular pigmentary urticaria.

Dr. J. C. CULBERTSON read a paper entitled "A Revision of the Code of Ethics, Constitution and By-Laws of the American Medical Association."

The paper was discussed by Drs. HOTZ, MOYER, ROBISON, GRAHAM, DOERING, E. L. HOLMES, BROWER, METTLER, SCHAEFER LEUSMAN, WELLER and HARRIS.

A motion to indorse the present code of ethics of the American Medical Association was lost seventeen to eighteen.

A motion to indorse the recommendations made in Dr. Culbertson's paper was carried.

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Dr. DOERING gave notice that he would move to reconsider the motion that was lost, at the next meeting.

Dr. HOTZ addressed the society, making various recommendations relative to the workings of the society.

On motion, a committee of five was appointed, including the President, 1st and 2d Vice Presidents, the Secretary and Treasurer, and empowered to sign a lease securing the use of the Orpheus Hall for every Monday evening for one year at a rental of $50 per month.

On motion the society adjourned.

JUNIUS C. HOAG, *Secretary.*

THE CHICAGO PATHOLOGICAL SOCIETY.

Regular meeting Nov. 14th, 1892.

The President, Dr. C. D. WESCOTT, in the chair.

EXHIBITION OF SPECIMENS ILLUSTRATING A NEW METHOD OF STAINING.

Dr. BISHOP: Through the kindness of your Vice-President, Dr. Patton, I have been invited to present a section of the cerebral cortex from the human subject. The specimen shows nothing new in a histological way but is presented for the purpose of exhibiting a method of staining that has been used of late by some investigators. The method was devised by the Spanish investigator, Ramon y Cajal. As several important discoveries relative to the histology of the nervous system have been made by this method I thought it would not be out of place to accept Dr. Patton's invitation and show the specimen of the society.

The method of preparation is interesting and of value; first, because of the ease of its application, and second, because of the rapidity with which the process may be completed.

The fresh cerebral cortex should be taken as soon as possible after death, a small piece excised and placed at once in a solution composed of a mixture of bichromate of potassium, a five per cent solution; of this three parts are taken, and osmic acid, a one per cent solution; of this one part is taken. These are thoroughly mixed, the fresh tissues are placed at once in the solution and left for from twenty-four to forty-eight hours. They are then transferred to a seventy-five one-hundredths per cent solution of silver nitrate in distilled water and left for from twenty-four to thirty hours. At this stage the specimens are hardened and stained, and are now

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ready for section cutting. Thus, the entire process occupies only about seventy-two hours.

To prepare sections, the bits of tissue are fastened on cork with a layer of glycerine jelly; sections made with a sliding microtome, the knife being kept moist with eighty per cent alcohol, transferred at once to ninety-five per cent alcohol, and cleared with Weigert's solution. This clearing solution is composed of carbolic acid three parts, and xylol one part; perfectly anhydrous crystals of the acid should be used, these melted and mixed with the xylol in a perfectly dry bottle.

To mount specimens, the sections are carried to the cover glass, the superfluous clearing solution removed with bibulous paper and mounted in xylol balsam without cover slip. Specimens prepared in this solution will color too black, with age, if a cover slip is used.

This stain seems to have a selective action for the motor cells of the cortex; these cells are stained perfectly black, the nuclei are not visible, and not only the cells are stained but their processes as well. By this method Golgi has demonstrated that there are only three layers of these cells in the cortex instead of four according to the old classification of Meynert. In an examination of sections prepared in this way I have almost conclusively proven this to be the case. Upon the surface there is a layer of pyramidal ganglion cells of small size; as we go deeper we find a somewhat thicker layer of the same ganglion cells, but considerably larger, and as we approach the white substance of the cerebrum beneath the cortex we find a mixed layer of pyramidal and multipolar cells.

Some observers by using this method, claim to have shown conclusively that in the spinal cord there is no direct connection between the fibers of one ganglion cell and another; that nervous impressions are conveyed from one cell to another by mere contact of the axis cylinder processes and in no instances do they unite. It has also been shown, and this can be demonstratad by any one who will prepare the sections, that the axis cylinder processes of the ganglion cells do branch and ramify through the cortex.

I present this specimen to illustrate the method because I believe that with it a great deal can be added to the histology of the nervous system.

I have another specimen which I will mention briefly: it is a section of human skin from the finger, which has been prepared in the usual way, and also stained with hematoxylon for the purpose of bringing out the nuclei. The beautiful point about the section

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is that the knife happened to pass directly through and parallel with one of the ducts of the coil glands in the layers of the epidermis, showing the peculiar spiral the duct makes before reaching the free surface. It also shows that the coil duct while passing through the epidermis is not lined by any distinct layer of epithelial cells, as it is in the derma, but is a mere channel and nothing else; so that the intercellular spaces of the epidermis open directly into the duct, and there is no membrana propria.

Dr. J. J. M. ANGEAR: If in regard to the statement that these cell or axis cylinder prolongations do not communicate, he had said that we have not yet found them in absolute union, it would have been in better keeping perhaps with what we do know.

Dr. H. N. MOYER: Any judgment as to the value of this method would be decidedly premature on the part of one who has had no practical experience with the use of this stain. It appears to be one of the differential colors having a special affinity for certain elements of tissues, in that way enabling us to trace these structures with great distinctness. In the specimen before us, some histological elements are brought out with marvelous clearness while others are obscured. Dr. Bishop says that it demonstrates a three instead of a five layer type of cortex. I can count five layers in this specimen with as much certainty as I have ever been able to count them.

Dr. BISHOP in closing the discussion said: I am glad to accept the criticisms offered. Of course we cannot say positively that the axis cylinder processes do not unite, but so far as we can see they do not; certain observers make this statement but I cannot substantiate nor disprove it. I would say in addition: This stain is applicable to other structures as well as the central nervous system. It shows very nicely the bile capillaries of the liver, and is applicable as well to such nervous structures as the corneal corpuscles. It is very hard to obtain a section of the cornea by the ordinary methods which show the corneal corpuscles distinctly, but this method shows the corpuscles while it leaves the other structures of the cornea but lightly stained. It is applicable to the cord and the spinal and sympathetic ganglia. Valuable results may be obtained by applying it to these structures.

EXHIBITION OF SPECIMENS.—MULTIPLE ABSCESS OF THE LIVER.

Dr. JOSEPH S. SAGESER: The patient from whom these specimens were taken this morning, came to my office a little over forty days ago complaining of severe pain in his back, which proved to be an ordinary lumbago. I put him on the customary treatment

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and it soon yielded. After that he began to have symptoms of rather grave indigestion and I commenced treatment for that. At no time in the first part of his sickness was there any marked fever. As the days went on I noticed he was beginning to show a little jaundice in the eyes, but I took it this was caused by a slight inflammation along the common duct, and I gave him purgatives to move his bowels and carry it away. He gradually grew worse and Dr. Danforth was called in consultation. At that time there was no doubt of hepatitis, accompanied by the ordinary fever. In a few days he began to get better and we felt quite hopeful, then he grew worse again. About this time he had attacks of severe pain so that I was called to him at night three or four different times. The pain was so severe over the region of the gall-bladder that it was generally necessary to give him two injections of one-fourth grain of morphia and $^1/_{120}$th grain of atropia, which would allay his pain and he would have no more trouble perhaps for a day or two. Dr. Lyman was called to see the case and gall stone was talked of, also malignant disease and abscesses, but it was decided that it was not very likely malignant disease. Last Saturday morning about three o'clock he had an attack of pain, though not more severe than usual; I gave him the usual hypodermic injection, but he was quite weak and from that time began to sink and died by 10 o'clock.

This morning we made a post-mortem and removed these specimens. This is a part of the great omentum, it is very dark colored at the lower side, just what that is I don't know. The liver showed the ordinary typical signs of hepatitis, and in the gall-bladder there were found, by actual count, 216 stones, and I suppose we lost perhaps half a dozen. One of the kidneys was very much diseased, the other congested very little. No albumin was found in the urine at any time during his sickness.

Dr. I. N. DANFORTH: When I was called, a month ago to-day, the patient was jaundiced very deeply, and had a temperature of 102.5°. The liver was very much enlarged, the area of dullness very much increased upward and downward, there was distinct and well-marked tenderness over the liver below the line of the ribs; the urine was loaded with bile but contained no albumin; the evacuations from the bowels were very scanty, and he was extremely constipated; sometimes the stools would be very light colored and perhaps the next time very dark and offensive. This was the first time I had examined the patient and the idea of gall stones did not enter my mind at that time. He went on and improved in every sense, the line of dullness diminished upward and downward,

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the tongue became clean and convalescence seemed to be well established so that I stopped my visits. About a week ago I was recalled by Dr. Sageser, and at that time I was struck with the bad appearance of the patient; there was no temperature, but the tongue was coated with a dirty yellowish gray coat, the breath was foul and the bowels constipated. The digestion was poor; there was a want of appetite and loathing of food. The pulse was feeble, weak and rapid. The doctor has since told me that at that time he had a severe attack of hepitalgia located about where the pain of gall stones ought to be, and then the idea of gall stones entered my mind, but I could not at that time extract from the patient any well-defined accounts of previous attacks of pain over the liver or gall-bladder. But his wife tells me to-day that for some years past he has had occasional attacks of severe pain there. I could not get the patient to acknowledge any attacks of that kind. The temperature went up to 102°; there was marked tenderness over the whole lower segment of the liver; there were night sweats and headache, and then the possibility of abscess of the liver or some rapidly developing malignant disease came up, but we all finally settled down to a diagnosis of gall stones. This morning we made the post-mortem and found this vast array of stones and this thickened omentum. I forgot to mention that there were a half dozen little pockets of pus in the liver. This is the kidney in a state of fatty change, and I took out of it these little calculi, which I find to be oxalate of lime, stained by blood.

Dr. J. J. M. ANGEAR: I was listening with a great deal of interest to hear what was the cause of death.

Dr. I. N. DANFORTH: The patient died of exhaustion, the immediate cause of death was that his heart stopped beating, it was one of those cases that we call heart failure.

Dr. HOMER THOMAS: If a diagnosis had been made early would an operation for removal of the gall stones been justifiable? Secondly, what relation did the gall stones have to the inflammation in the liver?

Dr. J. B. HERRICK: Was anything abnormal found in the gall-bladder walls and the larger bile ducts? and were there small abscesses in the liver?

Dr. I. N. DANFORTH: The gall-bladder was a good deal distended; as to the bile ducts, I could not say. There were half a dozen small abscesses in the liver.

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Regular Meeting, November 13th, 1892.

Dr. J. B. HERRICK: It seems to me that there is here quite a clear chain of pathological changes. We have gall stones, irritation of the walls of the ducts, infection from the intestinal tract, and suppurative inflammation of the bile ducts readily leading to suppurative inflammation of the parenchyma of the liver, and this suppuration as is usually the case, in the form of small multiple abscesses such as Dr. Danforth described, as found at this autopsy. If these abscesses were just commencing and in various parts of the liver, we should have the organ enlarged and tender and accompanying this condition the symptoms of septicemia or septic intoxication, headache, fever, night sweats, emaciation and the various phenomena that have been so well described by Dr. Sageser in his history of the case. This would be, it seems to me, an efficient cause of death. Probably if microscopic examination is made of sections of this liver there will be found areas of unseen suppuration, which, if the man had lived two or three months longer, would have developed into naked eye abscesses.

The condition of the omentum is interesting. While to the eye it appears like one with an excessive deposit of fat, a microscopic examination should be made to determine whether or not the harder portions represent a new growth.

Dr. E. S. PETTYJOHN: Was there persistent nausea and vomiting?

Dr. I. N. DANFORTH: No; there was some nausea the first week or so, but it was not persistent; it was quite easily controlled.

Dr. J. B. HERRICK: This patient probably had these abscesses when he first consulted a physician, and no operation at this time would have been of any use. You might have removed the gall stones, but the trouble with the liver being started no operation would have stopped its further progress. The operation would remove the cause after the full effect had been produced. It is impossible to secure drainage of multiple abscesses and force of suppuration in the liver.

Dr. J. M. PATTON: Was there any great variation in the fever and sweats?

Dr. J. S. SAGESER: Yes, there was quite a variation, the last week the morning temperature would sometimes be subnormal.

Dr. J. M. PATTON: That would agree with Dr. Herrick's theory as to the prosaic cause of death. It would hardly seem from a gross inspection of the liver that there was enough production of pus to result in sufficient systemic poisoning to cause

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death. Some of these cases die, as Dr. Danforth has stated, because the heart stops, and the heart stops because there is an acute degeneration of the cardiac muscle which results from malnutrition on account of the perverted functions of the liver and kidney and the failure to eliminate toxic substances from the blood, just as in ordinary acute nephritis. The appearance of these kidneys show that at least one of them had undergone interstitial development and was not in a condition to eliminate very well. This condition of a weak heart may develop whether you have jaundice or not; it is not necessary that there be a degeneration of the blood cells. The history of this case illustrates forcibly the difficulty at times of making a diagnosis of gall stones. The question of operation is an interesting one, but the difficulty of making a diagnosis always stands in the way.

Dr. G. H. CLEVELAND: Would it not be justifiable to operate in these cases? If death results from this suppurative process following the course of gall stones, with the diagnosis certain it seems to me that operation should be done. As Dr. Patton says, the differential diagnose may be difficult, but I question whether it is as difficult as he claims.

Dr. J. J. M. ANGEAR: We are overlooking the cause of death. What I want to know is, how inflammation of the liver could cause that patient's heart to stop beating, or cause the patient to stop breathing? Does it poison the blood, and then, as Dr. Patton says, affect the fiber of the heart. If that is so it is the point I want to have brought out. If it affects the brain, affects the medulla oblongata and there is failure of the heart because of that grand center being interfered with, what relation does peritonitis or nephritis, or hepatitis, or any of those things bear to the medulla oblongata? that is the point, and it is what every pathologist and practitioner is shunning.

Dr. J. B. HERRICK: Dr. Angear rightly says that a diagnosis of typhoid fever or pneumonia or abscess of the liver does not make clear the exact cause of death. He inquires after the ultimate cause. Now, the occult chemical and pathological changes that operate to produce death are not clearly understood, and perhaps never will be. In many conditions, however, we know that microörganisms are carried in the circulation, thus coming in contact with the cells and tissues of the body and working deleterious changes there. In other instances chemical substances, the product of bacterial action, are absorbed from the seat of bacterial activity and poison the cells, it may be of the heart, the cord, the respiratory center, just as do many drugs, as strychnia or atropia.

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But even this does not get at the ultimate cause of death. We say morphia kills by paralyzing the respiratory center. But this is not a complete explanation of its action and Dr. Angear might properly ask how does it paralyze the respiratory center.

Dr. G. H. CLEVELAND: If, as Dr. Herrick says, the exact condition of the liver could not be determined by any exploratory incision or puncture, would an operation at any time be justifiable in these cases of cholelithiasis?

Dr. J. B. HERRICK: An operation in cholelithiasis is certainly justifiable under many circumstances. The point I made is that at the time the doctor was called to see this patient there was more than cholelithiasis. There were multiple foci of suppuration in the substance of the liver, and the removal of the gall stones at this time would not have benefited this condition.

Dr. J. D. WESCOTT: Are we justified in operating for gall stones in any case were pronounced symptoms of sepsis are present?

Dr. J. B. HERRICK: Yes, sir.

Dr. C. D. WESCOTT: How do we know that these symptoms of sepsis are not due to multiple abscesses of the liver?

Dr. J. B. HERRICK: You cannot always tell; so that an operation may be justifiable for diagnostic purposes.

Dr. I. N. DANFORTH, in closing the discussion, said: These abscesses in the liver are overrated. There were about half a dozen minute pockets of pus, the largest one the size of a small pea. At no time after I saw this case was the question of operation to be thought of. Here was a very sick man with a temperature running up to 102.2° and his general condition very bad; he had from the first a feeble pulse and very bad digestion, so that he was in no condition to be operated upon, in fact he would have died upon the table. This man attended to his regular work until about two and a half months ago, then he came down with an acute attack, so that there was no reason at all for supposing that there was anything like suppuration going on in the liver at the time.

What the exciting cause of this acute attack may have been I don't know, but these gall stones were cause enough in themselves. If a diagnosis could have been made in time an operation would have been entirely feasible and I believe would have saved him. Dr. Patton says a diagnosis of gall stones is difficult; I don't think so, I think it is comparatively easy, not so easy as it is to diagnosticate pneumonia with a stethoscope, but as a surgical problem I think it is easy; in case of doubt, where the presumption is strong that they are present we are justified in making an exploratory incision.

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There is no one of you who can tell one time out of ten what is the cause of death in a given case. Dr. Angear speaks of death beginning in the brain, the lungs, the heart. That is Sir Thomas Watson's classifications of death which he wrote about forty years ago. He spoke as though he was telling us what is the cause of death, when in reality he was simply describing the mode of death.

REPORT OF CASES ILLUSTRATING THE VALUE OF NONSURGICAL TREATMENT OF CONVERGENT STRABISMUS.

Dr. CASSIUS D. WESTCOTT presented a paper showing the results in 22 cases of nonsurgical treatment of convergent strabismus in children, in which 14 were entirely corrected without tenotomy, 2 were corrected by the aid of tenotomy, one was reported as improved, 2 not improved, and in three the results were unknown. The treatment of these cases had extended over a number of months and consisted in the use of atropia and suitable glasses.

Dr. AD. MEYER: Two years ago I paid considerable attention to this question when attending Prof. Landolt's clinic and the clinics of Dr. Berry and Dr. Argyle Robertson, in Edinburgh. There I found operation was resorted to in most cases because these men went by the rule of correction of accommodation and if the result was not satisfactory within a month or two this treatment was given up entirely and they made an operation.

Dr. C. D. WESTCOTT, in reply to Dr. Stannard's questions, said: In young children I have been in the habit of beginning with a solution of atropin, 2 grains to the ounce, increasing the strength when tolerance is established; when they are 10 or 12 years of age I begin with a solution, 4 grains to the ounce at once, but I almost always get some flushing of the face and dryness of the throat, and in some cases headache for the first two or three days when I use the stronger solution, but many times these symptoms are absent in using the weaker solution. Where the pupil is dilated for so long a time I think we may expect trouble from the effect of light unless we guard against it by colored glasses or shades.

Dr. H. N. MOYER: I think this paper is a fine example, and the only one I have ever heard showing how the intricacies of ophthalmology can be brought within the comprehension of the general practitioner of medicine.

Dr. C. D. WESTOTT, in closing the discussion, said: My little table of 22 cases is entirely too small to base any generaliza-

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tions upon. Some of these cases would have been dismissed as failures at the end of two months.

My table illustrates, if anything can, the desirability of patience and time in the management of some troubles which we find to be primarily functional in their nature, before resorting to operations that may not be necessary, but possibly harmful.

E. S. PETTYJOHN, *Secretary.*

THE COOK COUNTY HOSPITAL CLINICAL SOCIETY.

Regular Meeting, December 1st, 1892.

Dr. F. N. COCHEMS, Chief, in the chair.

The minutes of the previous meeting were read and approved.

Dr. A. F. SIPPY reported cases of delirium tremens with hyperpyrexia. S. A., male, 37, laborer, admitted October 27th, 1892, to service of Dr. Senn. Drinks considerable, but not for last few weeks. Venereal history denied. Present illness began ten weeks ago, chill every night, pain in epigastrium, morning vomiting, anorexia, gets up at night to urinate. Physical examination negative. Patient quiet; pulse, temperature and respiration normal; after about two days in the evening became restless, nervous and tremulous i. e. the signs of commencing delirium. He was given digitalis and strychnine every four hours, and morphine sulph., gr. ¼ every two hours hypodermically. Pulse and respiration went up, and at midnight patient was wildly delirious. Morphine every hour. Pulse, 134-162. Respirations, 13-17. Temperature, 109° F. Rub bed with ice, but rectal temperature still 108.8° F. Pulse very weak; various cardiac stimulants were tried hypodermically: Digitalis, nitroglycerine, whisky, aromatic spirits of ammonia and strychnia. These succeeded in making an imperceptible, radial pulse again manifest. Death at 6:15 A. M., with rectal temperature of 104° F.

II. Chronic Meningitis and Intestinal Tuberculosis. J. S., porter, admitted November 14th, 1892, to service of Dr. Ochsner. Family history negative. Drinks moderately. Three years ago was injured on left side of head, no paralysis, delirious for four days at that time, never rational since. Present illness began three months ago; began to fail mentally and physically, poor appetite, constant cough and expectoration. Diarrhea for last six weeks; bloody stools four weeks. Examination shows patient emaciated, stuporous, pupils contracted, no local symptoms. Examination otherwise negative. Death in three days.

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Autopsy. Tubercular nodule size of black walnut in apex of right lung. Bronchial glands caseous. Small intestines within a foot of cecum present numerous transverse ulcers, necrotic bases with tubercles, edges also show nodules, disposed transversely to long axis of gut. Peyers' patches involved. Mesenteric glands caseous. Brain ; large amount clear yellow fluid beneath. Dura, lateral and third ventricle filled with same. Scrotum empty, testes found hanging over brim of pelvis, size of ovary. Vas deferens present and communicates with seminal vesicles.

III. Amebic Dysentery. J. B., 31, American, machinist, admitted August 26th, 1892, to service of Dr. Senn. Family history negative. Previous illness none except mountain fever nine years ago. Takes morphia, gr. xv. daily, hypodermically for years, smokes and drinks. Lived in Chicago for last two years, habitually constipated. Present illness began ten days before admission, when he took a seidlitz powder which caused a diarrhea, which has continued pain in the stomach. Examination. Patient fairly nourished, abdomen hard and tender, tenderness in right iliac region. Patient presented most of the symptoms of typhoid, and was treated as such. The course of the disease was very protracted and patient would not convalesce. In October the liver dullness was increased and the region painful and tender. Gradual emaciation and failing until death, November 3d.

Autopsy. Stomach and small intestine negative. Colon mucous membrane everywhere presents numerous flat ulcers, variable in size, some with overhanging margins, some communicate by submucous passages, slaty color and bases covered with viscid adherent gray substance. Liver, 32 x 22 x 19 x 9 cm. Right lobe near longitudinal fissure is seat of large cavity containing about one and one-half pints of thick, creamy liquid, greenish yellow in color. Spleen, 18 x 10½ x 3½ cm. Small hemorrhages on surface substance pulpy and of mahogany color.

Dr. SIPPY presented the specimens of this case, and also, through courtesy of Dr. Hektoen, a specimen of amebic ulceration of colon and stained section of ulcer in which the ameba coli was abundantly and plainly visible.

Discussed by Drs. WEAVER, COCHENS, PREBLE, HESSERT DURR, and BISHOP, who related cases of delirium tremens with the results of various modes of treatment. Most all remedies were tried, chloral and bromides, morphine, strychnine, cardiac stimulants, etc., but it was generally agreed that the treatment is of little avail directly. A nourishing diet, enemata if necessary, mild restraint and stimulation if needed, offers as good results as any.

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Dr. WILLIAM HESSERT exhibited a case of ununited fracture of neck of left femur just within great trochanter in a woman about twenty-five years old, who gave history of having fallen out of the cradle in infancy and having been "lame" ever since, but suffering no inconvenience whatever. Examination in dorsal decubitus; foot and leg everted, preternatural mobility at hip, crepitus soft in character, no loss of function as she can raise her thigh, no pain, shortening of left leg and thigh 6 cm. Trochanter projects far above Nelaton's line and hip is somewhat flatter. Can stand balanced on affected limb, walks with ease, suffers no complaint. Entered hospital for pregnancy.

Adjourned.

WILLIAM HESSERT,
A. F. SIPPY, } *Secretaries.*

Regular Meeting, December 15th, 1892.

Dr. F. N. COCHEMS, Chief, in the chair.

The minutes of the previous meeting were read and approved.

Dr. D. D. BISHOP reported two cases of dorsal myelitis.

CASE I. Pat. K., Irish, laborer, seventy. Previous illnesses, none. Present sickness began last February when he had grippe, from which never recovered. In September, noticed "weakness" in lower limbs, and after a few days was wholly unable to walk. Physical examination negative, except as regards nervous system. Cannot move either leg; arms shrunk; unimpaired reflexes; cutaneous not characteristic. No ankle clonus, patellar and plantar exaggerated, cutaneous sensibility nearly lost below level of umbilicus. Involuntary micturition and defecation. Has shooting pains and "girdle sensation" above abdomen.

CASE II. Thos. McL., Scotland, painter, twenty-seven. Drinks and uses tobacco. Gonorrhea and chancre eighteen months ago; malaria, nineteen months ago. Present illness began seven months ago, with sudden weakness in legs, staggering gait, imperfect control of legs, could not lift foot over small obstacle. After five weeks lost control entirely over left leg; could stand on right, but not on left limb. Imperfect control of bladder and rectum. Has feeling of constricting band two inches below naval. Examination. Left pupil slightly dilated, react to light and accommodation. Otherwise negative except following. Reflexes; plantar very marked; cremasteric and abdominal absent. Cutaneous sensibility lost over right leg below knee; diminished

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above knee; over left leg diminished below knee; normal above ankle clonus marked and increased patellar reflex. Cannot move left leg; some motion in right leg.

Discussion by Dr. ARCHIBALD CHURCH: I find it difficult to differentiate crossed myelitis from tumor in the cord. In case I. in the absence of specific history and with the girdle sensation, paraplegia, hyperesthesia, pains and rapid onset, one suspects an implication of the meninges and diagnoses hemorrhagic pachymeningitis or suspects presence of a new growth. The loss of spincteric control and presence of increased myotatic irritability coerists in crossed myelitis and pressure from tumor. Crossed myelitis is rare at that age as are also tumors—carcinoma is generally secondary—no tuberculosis in the case—but the rheumatic history, the probability of changes in the arteries and arterial rupture leads to the supposition of hemorrhagic pachymeningitis. I like to operate on such cases, the expectant plan of treatment is nil, so that the operation can be risked. If you find pachymeningitis, the desirability of drainage is not settled. J. W. White reported a case with symtoms similar to this one and at the operation adhesions found between dura and arachnoid were broken down and recovery followed. The operation itself results in no harm.

Regarding case II. the bizarre character of the symptoms, the nonclassical type is characteristic of specific myelitis. Benedict reported such cases and erected a clinical criterion of specific myelitis. This disease very often presents aggressions and recessions, one or both limbs paralyzed alternately amblyopia, diplopia, loss of speech and smell and the transient character of the symtoms indicates specific infection even if history is not obtainable. The treatment is disappointing, if there are indications of pressure by gumma, temporary improvement can be secured. But do not operate before first trying energetic specific treatment. cannot expect a cure as certain residue is always remaining to bring on an aggression of the symptoms.

Dr. A. A. KNAPP exhibited cases of: 1. Exophthalmic goiter in a young woman presenting the typical symptoms, bronchocele, exophthalmos, rapid pulse, nervousness, etc.; 2. Probable hysteria in a young man presenting aphonia, anomalies of hearing recurring convulsions, ocular field for red twice as large as for blue; 3. Aneurism of the arch of aorta.

Dr. W. E. DURR exhibited cases of 1. Old fracture of patella sustained seven years previously where fragments were separated for one and a half inches by fibrous tissue, characteristic deformed appearance, functional result almost perfect; 2. Recurrence of in-

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guinal hernia at site of a previous herniotomy; 3. Heart cases, aortic stenosis and mitral insufficiency, mitral regurgitation.

Dr. J. B. De Lee read a paper on "Anomalies of the Brachial Artery," and reported two cases.

Dr. F. N. Cochems exhibited a case of cut throat in which the primary razor cuts incised the thyroid cartilage, one above and one below insertion of vocal cords which were exposed. Wound sutured, but after a few weeks patient began to have choking spells, finally necessitating tracheotomy. The obstruction was found to be a flap of tissue which, valve like, had prevented the outflow of air. At present the valve like flap can be plainly seen through the old tracheotomy wound fluttering to and fro with the currents of air.

Dr. W. E. Durr exhibited a beautiful specimen of sacculated aneurism of abdominal aorta, showing a laminated clot in its interior.

Adjourned.

William Hessert,
A. F. Sippy, } *Secretaries.*

Reviews.

Beitrag zur Klinik der Aktinomykosis. Von Alberto Illich, Operateur an der I. chirurg. Klinik des Hofraths. Prof. Albert in Wien. pp. 200.

This monograph bears evidence of careful preparation and thorough investigation of the literature of the subject. The object of the work is to lay before the profession in convenient form the clinical histories of the cases of this disease which have been reported since the appearance of Israel's treatise on the subject. The author has collected altogether 421 cases, in 281 of which the disease was located in the mouth and throat; in fifty-eight cases in the lungs; in eighty-nine cases in the abdomen; in eleven cases in the skin, and in sixteen cases in the tongue. Fifty-four cases were observed in Albert's clinic. Dividing the book into chapters according to these locations, the author first gives the histories of the cases observed in Albert's clinic, then follows the histories of the cases reported by other authors, and finally each chapter closes with a resumé of the symptoms and differential diagnosis of the disease as observed in these various locations.

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There is also one chapter devoted to a consideration of those cases where the atrium of infection could not be determined, and one devoted to a consideration of "Madura foot," a condition which if not always, is at least in many instances due to the actinomycosis. The work is accompanied by a literary index and two excellent illustrations of actinomycosis involving the skin. Practically the chief value of the work consists in the stress laid on the fact that the disease is far less malignant than heretofore supposed. Of all forms the location in the lungs is most fatal, only two cases of recovery when situated in these organs are noted. The treatment in short is, incision, curretting, tamponing with iodoform gauze and bichloride injections. The use of tuberculin is favorably mentiond. To one wishing to study this disease especially, we highly recommend this work.

MANUAL OF PRACTICAL MEDICAL AND PHYSIOLOGICAL CHEMISTRY. By CHARLES E. PELLEW, E. M., Demonstrator of Physics and Chemistry in the College of Physicians and Surgeons (Medical Department of Columbia College), New York. Honorary Assistant in Chemistry at the School of Mines, Columbia College, etc. With Illustrations. 314 pages. New York: D. Appleton & Company, 1892. $2.50.

Without sacrifice of thoroughness, the author of this eminently practical manual has had the courage to leave the beaten and deeply rutted tracks in which from time immemorial medical chemists have trod, and to give to the medical student a text-book which is useful, not only in a page here and there, but from title page to index. The routine text-books on medical chemistry have always contained a wealth of information for the chemist, but very little for the physician, and that little has usually been confined to urinalysis, toxicology, and a few pages on analysis of foods. The practical laboratory work of the greater proportion of American medical students consists of little more than the analysis of urine furnished by the students themselves and adulterated with albumin or grape sugar.

The manual is modern, up to date, practical, clearly and sufficiently illustrated and irregularly interleaved. The subject is considered in thirty lessons, of which five are devoted to the carbohydrates; two to the fats and fixed oils; three to the proteids of albuminous bodies; five to the inorganic constituents of the body; one to water analysis; four to animal tissues and secretions; one to the digestion, and nine to the chemical and microscopical examination of the urine. The six appendices give

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tables of weights and measures, equivalent values of weights and measures, atomic weights; and lists of reagents and apparatus.

DISEASES OF THE EYE, EAR, THROAT AND NOSE. A Manual for Students and Practitioners. By FRANK E. MILLER, M. D., Attending Physician, St. Joseph's Hospital; Throat Surgeon, Vanderbilt Clinic, New York: JAMES P. McEVOY, M. D., Throat Surgeon, Bellevue Hospital, Out Patient Department, New York, and JOHN E. WEEKS, M. D., Surgeon, New York Eye and Ear Infirmary; Lecturer on Ophthalmology and Otology, Bellevue Hospital Medical College, New York. 228 pages. $1.00.

This digest is especially to be commended because of its conciseness, admirable arrangement, and practical value to the practitioner as well as to the student. One hundred and twenty-six pages are devoted to the eye and its diseases. The reviewer does not appreciate the advantage to be derived from the employment of English instead of Latin in the formulæ in this section. The ear has thirty pages allotted to it. In this small space an enormous mass of practical information is compactly stored. The diseases of the throat are considered in thirty-four pages. The subdivisions are well arranged and the subjects discussed in a thorough and workmanlike manner. Two excellent plates are introduced illustrating respectively diseased conditions of the pharynx and of the vocal cords. Dr. Lefferts has permitted the authors to incorporate in this section his valuable differential table of the signs and symptoms of the principal laryngeal diseases. The last twenty-nine pages of the book are given to the discussion of diseases of the nose. The subject is systematically and practically treated. It is to be regretted however that so much space should have been devoted to the illustration of so common objects as an electro-motor and a dental engine.

DISEASES OF THE RECTUM, ANUS AND SIGMOID FLEXURE. By JOSEPH M. MATHEWS, M. D., Professor of Principles and Practice of Surgery and Clinical Lecturer of Diseases of the Rectum, Kentucky School of Medicine, etc., etc. New York: D. Appleton & Co., 1892. Octavo, 525 pages.

The author has placed before the profession the fruits of fifteen years' experience as a rectal specialist. He does not always agree with the opinions of his colleagues, but he fairly states theirs and then gives his own reasons for differing with them. The author's style is clear and readable, although sometimes somewhat prolix. The general practitioner is prone to neglect manifestations of rectal

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diseases, and often wrongfully allays the patient's fears that he has rectal disease by making light of them, and not instituting an examination. A careful perusal of Mathew's work cannot fail to give the practitioner all the knowledge that is desirable to successfully diagnosticate and treat any case of rectal disease that may come before him, if he possesses a modicum of the dexterity that an ordinary surgeon should have. Dr. Mathews claims priority for operating upon fistula in ano by the fistulatome, an instrument resembling the urethrotome. It is to be regretted that the author has not more fully shown the relations that exist between disease of the rectum and diarrhea. And while it would not have properly belonged to such a work, it would have been within the author's scope to describe in detail colonic flushing and its effects in diseases of the intestines, including the rectum. The book is rich in clinical material, and in the writer's opinion is the best work on this specialty yet published. The publishers have done their work well, the six chrom-lithographs being artistic.

A MANUAL OF THE PRACTICE OF MEDICINE, Prepared Especially for Students. By A. A. STEVENS, A. M., M. D., Instructor of Physical Diagnosis in the University of Pennsylvania, and Demonstrator of Pathology in the Woman's Medical College, Philadelphia. 501 pages. Philadelphia: W. B. Saunders. 1893.

Medicine as now taught in the United States is responsible for this book. The quotation from Pope, "Half our knowledge we must snatch, not take," with which the preface begins, expresses the idea of the average student of to-day, whose aim is apparently ease rather than thoroughness, and who flies to and employs compends of information instead of earnestly studying the more extensive and comprehensive treatises.

This work, however, should not be classed with the average compend. Although the author states that the book has been written at the request of many students, he has prepared a complete, well-classified, and clearly arranged outline of practice of medicine which will be welcomed by practitioners as well as students.

He has consulted in the preparation of the work the most celebrated authorities on practice of medicine. He has not subordinated all things else to treatment, but has considered concisely and yet fully the etiology, pathology, diagnosis and differential diagnosis and prognosis before writing up treatment. He has also discussed, at greater length than is usual in such manuals, the questions appertaining to general symptomatology. The book is well

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arranged, clearly paragraphed, the subdivisions ample and well marked; the illustrations infrequent, but good of their kind.

ANATOMY, A Manual for Students and Practitioners. By. FRED. J. BROCKWAY, M. D., Assistant Demonstrator of Anatomy, College of Physicians and Surgeons, New York, and A. O'MALLEY, M. D., Instructor in Surgery, New York Polyclinic. 376 pages. $1.75.

This is more useful than many of the quiz compends of anatomy, for it is something more than an abridgment of Gray. The most recent discoveries of the German anatomists are included in this work, and Heule's classification is followed throughout. Muscular variations and anomalies are also described. Both the new names for muscles, proposed by the German Anatomical Society, and the old names are given. The essentials of anatomy are presented in this book completely and yet very concisely. The authors of the manual have appended a useful glossary which gives in addition to the definition, the derivation and correct pronunciation of anatomical terms.

KIRKE'S HAND BOOK OF PHYSIOLOGY. Revised by W. MORRANT BAKER, F. R. C. S., and VINCENT DONNER HARRIS, M. D., Lond. F. R. C. P. Philadelphia: P. Blakiston, Son & Co., 1892. 862 pages. Cloth, $4.50.

A work on physiology that has passed its thirteenth edition must be so well known as a text-book as to need no new words of praise. The latest advances in physiology have been incorporated in this edition. While essentially a text-book for students, the busy practitioner will find this work will jog his lagging memory, and furnish him food for reflection. Some of the wood cuts representing cells fall short of giving as vivid a picture as they should. The press work is exceptionally good where tinted plates have been used.

THE ANATOMY OF THE PERITONEUM. By FRANKLIN DEXTER, M. D., Assistant Demonstrator of Anatomy, College of Physicians and Surgeons, (Columbia University), New York. 86 pages. $1.50. New York: D. Appleton & Co., 1892.

This book is founded upon a pamphlet by Professor Toldt, of Vienna, entitled "The Development of the Peritoneum." The title of this book should be the "Development" rather than "The Anatomy of the Peritoneum." The illustrations are numerous, diagrammatic and plain; in fact the book consists of plates illus-

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trating the development of the peritoneum with brief explanatory notes. A work of this kind is of interest to the embryologist, but can be of little or no practical value to the general practitioner.

PHYSIOLOGY. A Manual for Students and Practitioners. By FREDERICK A. MANNING, M. D., Attending Surgeon Manhattan Hospital, New York. 213 pages. $1.00.

The author lays no claim to originality in this manual. It is a condensation, chiefly from Kirke, Foster and Dalton. The recent and standard work of Landois and Stirling has apparently not been consulted. The condensation has been well done. In a short appendix the author reproduces Gray's Table of the Development of the Embryo and gives a useful list of the common chemical tests used in physiological analysis, and a scheme of the metric system.

ACCIDENTS AND EMERGENCIES. By CHARLES W. DALLES, M. D., Philadelphia: P. Blakiston, Son & Co., 1892. Duodecimo, 148 pages. Cloth, $1.00.

This manual is intended for the laity, and would be a suitable gift from physicians to families that seem to be "always having accidents happen." Its instructions if followed would often save suffering and life.

PAMPHLETS RECEIVED.

ANAL FISSURE. ITS ETIOLOGY, SYMPTOMATOLOGY ETC. *University Med. Mag.*, Sept., 1892. FISTULA IN ANO. *Med. and Surg. Rep.*, Sept., 1892. FIVE CASES OF CHRONIC MERCURIAL POISONING, *Med. News*, Aug., 15, 1892. TREATMENT BY ANAL FISSURE, *Med. News*, Oct. 15, 1892. OPERATIVE TREATMENT OF FISTULA IN ANO, *Int'n'l. Med. Mag.*, Oct., 1892. By LEWIS H. ALDER, JR., M. D.

SOUTHERN CALIFORNIA. An Authentic Description of its Natural Features, Resources and Prospects, Containing Reliable Information for the Homeseeker, Tourist and Invalid. Published by the Southern California Bureau of Information, Los Angeles, Cal., Bureau of Information Print, 1892.

THE COLLEGIATE DEGREE AS AN EVIDENCE OF FITNESS FOR THE STUDY OF MEDICINE. By L. HARRISON METTLER, M. D. Reprint, *Bull. Sur. Academy of Med.*

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REPORT OF A CASE OF SUDDEN DEATH FROM CORONARY OBSTRUCTION, with specimen. By Dr. CASSIUS D. WESCOTT, CHICAGO MEDICAL RECORDER, Oct., '92.

SURGICAL VERSUS EDUCATIONAL METHODS FOR THE IMPROVEMENT OF THE MENTAL CONDITION OF THE FEEBLE-MINDED. By FRANK P. NORBURY, M. D.

SOME OBSERVATIONS UPON THE MECHANICAL TREATMENT OF POTTS' DISEASE. By A. E. HOADLEY, M. D. *Jour. Am. Med. Ass'n.*, Nov. 12, 1892.

CRIMINAL RESPONSIBILITY IN THE EARLY STAGES OF GENERAL PARALYSIS. By FRANK P. NORBURY, M. D. *Trans. Ill. State Med. Soc.*

A NEW CONSIDERATION OF HEREDITARY CHOREA. By R. M. PHELPS, M. D. *Jour. Nerv. and Mental Disease*, Oct., 1892.

KENTUCKY SCHOOL OF MEDICINE in the City of Louisville. Register of students, 1892. Circular of information, 1893.

THE DOMINANT ETIOLOGICAL FACTOR IN TALIPES. By A. E. HOADLEY, M. D. THE CHICAGO MED. RECORDER, 1892.

THE KRASKE METHOD OF EXTIRPATION OF THE RECTUM. By JOSEPH B. BACON, M. D. *North Am. Pract.*, Oct., '92.

HEREDITARY ATAXIA. By SANGER BROWN, M. D., with discussion by J. A. C. OMEROD and PROF. BERNHARDT.

News Items.

Dr. H. C. Welcker has removed his office from 70 State street to the Masonic Temple.

The Journal of Balneology and Dietary, will be issued monthly beginning with January, 1893.

The bicycle is now advocated by certain of our transatlantic confrères as a remedy for sciatica.

Of the 36,000 visitors to Carlsbad last season, more than six per cent came from the United States.

Dr. A. L. THOMAS has removed to 3523 Indiana Avenue. He retains his office at 3100 Wentworth Avenue.

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Dr. ALEXANDER RANDALL has been elected aurist to the Methodist Episcopal Hospital, Philadelphia.

VON BARDELEBEN treats burns on the face with a powder of starch and subnitrate of bismuth, equal parts.

Dr. E. J. Mellish, formerly of Ishpeming, Mich., has located at 307 Belden avenue, Chicago. Tel. No. 697.

A committee has been formed for the erection of a monument to the late Professor Villemin, of Paris.

The late Mr. Colles, of fracture fame, is to have a memorial portrait in the Royal College of Surgeons at Dublin.

Professor LIEBRICH will preside at the fifteenth balneological congress which convenes at Berlin, on March 8, 1893.

Dr. ROBERT LOCKE has returned from his European trip, and has taken a flat at the Norwood, 3000 Indiana Avenue.

Dr. JOHN A. ROBISON has been appointed Adjunct Professor to the Chair of Practice of Medicine in the Rush Medical College, Chicago.

Cholera has reappeared in Hamburg. Let us put our trust in cleanliness and good sanitary laws enforced by the power of the General Government.

Dr. C. C. HUNT, of Dixon, Ill., a prominent and influential practitioner, an honored member of many medical societies, died at his home last month.

The highest court of Germany has decided that legal human life dates from the beginning of labor, and that its destruction before full term is not murder.

Switzers with an income of less than 12,000 francs are to be congratulated. The Canton of Basle has voted to such, free medicine and medical attendance.

Dr. J. C. NAPIER of Blenheim, S. C., highly recommends the use of the horse-nettle (Solanum carolinense) in convulsive disorders and especially epilepsy.

Berlin has one hundred and eighty-three "Policlinics," so-called, and the thing is getting to be overdone; the policlinics are really only private dispensaries.

It is reported that the Attending Staff at Cook County Hospital are to be replaced by a salaried resident physician, salary $5,000, and an assistant, salary $2,500.

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The Board of Trustees of the Cincinnati Hospital has decided to establish a Training School for Nurses in connection with that institution, to begin January 15, 1893.

Dr. W. C. WILE, editor of the *New England Medical Journal*, was elected Surgeon General of the Grand Army of the Republic at the recent meeting in Washington.

The Clinical Medical College and Specialty Hospital has let contracts for the erection of a $200,000 hotel at the northwest corner of Wabash Avenue and Eda Street.

The Lancet, an alleged weekly resumé of the *London Lancet*, has appeared in Chicago. The first number contains twelve small pages. J. D. Hartley, M. D., is the editor.

San Francisco is to have a $200,000 hospital erected by the French Benevolent Society of that city. The hospital will be built in pavilions and will accommodate 150 patients.

The Belgian Academy of Medicine has offered a prize of 4,000 francs for the best essay upon the Pathology and Treatment of Epilepsy. Essays must be presented before February 1, 1894.

Dr. WILLIAM P. NORTHRUP has been invited by the trustees to deliver the Middleton Goldsmith Lecture before the New York Pathological Society in April next; subject to be later announced.

DR. JOHN A. ROBISON has opened a home sanitarium at 297 Ashland boulevard, for the reception of private patients. Physicians may manage their own cases and will receive every courtesy.

Dr. LUDVIG HEKTOEN begs to announce that he has established a private laboratory for the examination of sputum, urine, blood, discharges, pathological tissue, etc. Post-mortem examinations made.

M. HAFFKINE, of the Pasteur Institute, is about to proceed to India to endeavor to apply his method to practical use in the saving of life in the regions of endemic cholera in British India and possibly in Siam.

Winternitz, of Vienna, has recently treated cases of renal disease with the extract of the wild bilberry and with great success. Weil, of Berlin, claims that this has apparently cured a case of diabetes mellitus.

The British Medical Association has at last decided to admit duly qualified women as members. We may now in due course expect the passage of the "Deceased Wife's Sister" bill through the House of Lords.

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Dr. W. H. KATZENBACH, has been elected Professor of General Medicine at the New York Polyclinic; Dr. Andrew J. McCosh, a Professor of Surgery; Dr. Florian Krug, a Professor of Gynecology; and Dr. Edward B. Dench. a Professor of Otology.

The Council of the British Medical Association has announced that the "Middlemore Ophthalmological Prize," of fifty guineas, will be awarded for 1893, for the best essay on "The Diagnosis and Treatment of Diseases of the Lymphatics of the Eye."

The German Emperor has sent a bronze bust of himself, with a congratulatory telegram to Professor von Helmholtz, on the occasion of the fiftieth anniversary of the eminent scientist's graduation as Doctor of Medicine, which fell on November 2d.

The Illinois Training School for Nurses has apparently gained the victory in spite of the Grand Jury's finding, and the animosity of the County Board. It now seems probable that the contract to supply nurses for Cook County Hospital will be renewed.

Dr. OHMANN-DUMESNIL treats alopecia and alopecia areata with applications twice a week over the affected areas of pure English carbolic acid until the surface becomes milky white in color. This treatment causes some pain, but is said to be exceedingly efficient.

New York has more than a passing scare from typhus fever. Will the editor of the RECORD please take the Chicago typhoid moat out of his eye that his near vision may not be distorted? Speaking of filth diseases, New York is welcome to the supreme distinction implied.

The Paris Academy of Science resolved to open an international subscription, with the object of presenting M. Pasteur, on the occasion of his seventieth birthday, on December 27th, with a testimonial expressive of the esteem in which he is held by men of science throughout the world.

The National Association of Railway Surgeons will meet at Omaha, Nebraska, May 24th, 25th and 26th, 1893. This association embraces the railway surgeons of the United States, Canada, and Mexico. The preliminary announcement gives promise of a very interesting and useful meeting.

Professor ERNST LUDWIG, Rector Magnificus of the University of Vienna, has been created a life member of the Austrian House of Lords, in the room of the late Professor Brücke, the distinguished physiologist. Dr. Ludwig is Professor of Chemistry in the Medical Faculty of the University.

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Rule fifteen of the pamphlet on Classification and Rules issued by the World's Columbian Exposition reads as follows: "Articles that are in any way dangerous or offensive, also patent medicines, nostrums, and empirical preparations whose ingredients are concealed, will not be admitted to the Exposition."

TALAMON and GUYOT have locked horns on the subject of the former's abortive treatment of erysipelas by means of a spray of ethereal sublimate solution 1 to 100, which Guyot says he has employed for four months in his hospital service without being able to corroborate Talamon's favorable report in any degree.

Dr. W. C. ALBERTSON recommends smoking as an efficient agent in tuberculosis of the lungs. He uses a mixture of beechwood sawdust medicated if advisable, and some harmless, quick burning substance in a clay pipe. Cough and expectoration increase at first, but soon decrease and at last cease entirely.

Dr. K. FIEDLER treats cholera morbus successfully with water. He causes the patient to drink large amounts of water upon which the intestinal evacuations are almost immediately arrested, while the vomiting subsides more slowly. In the three cases he reports a cure was affected in a few days by the hydriatic treatment.

The heart of the French Dauphin, son of Louis XVI. and Marie Antoinette, was removed at the autopsy ninety-seven years ago, and has been preserved in alcohol ever since. The heart was in the possession of Dr. Pelletan who performed the autopsy. His son having recently died, the specimen is to be sold at auction.

It is currently reported that Governor-Elect Altgeld will appoint Dr. Nicholas Senn, Surgeon General of the Illinois National Guard. No better man could be found for the position. Dr. Senn's appointment will refute the ordinarily accepted belief regarding the keeping by elected candidates of preëlection promises.

The Kansas City Medical Record very aptly calls the forthcoming biography of the eminent physicians and surgeons of America, advance sheets of which have been scattered broadcast through the United States, with requests for biographical data and incidentally subscription to the work, the "Physicians' Herd-Book."

Mrs. ABRAM A. ANDERSON has offered $350,000 to the Roosevelt Hospital for the founding of a medical pavilion in memory of her father and mother. The only conditions of the gift are that the clinic shall be free to students, and be under the charge of Dr.

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Francis P. Kinnicutt. The trustees promptly accepted the gift with thanks.

Dr. GRAHAM W. FITCH died at Logansport, Indiana, November 28th, 1892, aged 84. Dr. Fitch was one of the most noteworthy men of Indiana, as a physician, legislator and soldier. He was a professor at Rush Medical College in 1844. At the time of his death he was Emeritus Professor of Principles and Practice of Surgery in the Medical College of Indiana.

Professor STELLWAG VON CARION, the distinguished ophthalmologist of Vienna, will celebrate his seventy-first birthday on January 28, 1893. His pupils and admirers are making active preparations to make the ceremonies and festivities worthy of the occasion. The Professor has occupied the Chair of Ophthalmology in the University of Vienna since 1873.

Dr. RALPH BUTTERFIELD, of Kansas City, a graduate of Dartmouth College in 1839, has bequeathed $180,000 to the College for the purpose of founding a professorship in archeology and kindred subjects and for the erection of a suitable building. The donor acquired his property in business and not by the practice of medicine, and was supposed to be poor and needy until his death.

The Missouri, Arkansas and Kansas Association of Railway Surgeons elected the following officers for the ensuing year at its recent meeting: President, Dr. P. J. Lutz, of St. Louis; Vice Presidents, Dr. J. E. Tefft, of Springfield Mo., and Dr. R. Aikman, of Fort Scott, Kansas. Dr. C. M. Lutterloh, of Jonesboro, Ark., Secretary. The Association adjourned to meet in St. Louis in May, 1893.

The corner stone of the large new building which the New York Post-Graduate Medical School and Hospital is about to build at the northeast corner of Second Avenue and Twentieth Street, was recently laid. The Rev. Marvin R. Vincent, of Union Theological Seminary, opened the exercises with prayer. Dr. D. B. St. John Roosa, President of the corporation, made a brief address and laid the corner stone.

The State Medical Society of Pennsylvania has taken a good stand in the bill adopted by it for presentation to the State legislature, in which the licensing power is separated from the teaching power. The licensing board is to be composed of nine graduates of some legal medical school, living in different parts of the State, and no member of the board is to be a member of the faculty or staff of any medical school.

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The officers of the American Gynecological Society for the ensuing year are: President, Theophilus Parvin, of Philadelphia; Vice Presidents, Wm. H. Parish, of Philadelphia and Wm. H. Baker, of Boston; Secretary, H. C. Coe, of New York; Treasurer. M. D. Mann, of Buffalo; Council, B. B. Brown, A. P. Dudley, E. C. Dudley and Willis Ford. The next meeting will be held in Philadelphia, May 16th, 1893.

At the annual meeting of the Board of Trustees of St. Luke's Hospital, the Reverend Clinton Locke, D. D., tendered his resignation as President of the hospital, a position which he had occupied and honored ever since the hospital opened. At the election of officers which followed Dr. Locke was elected Honorary Presient; Arthur Ryerson, President; Charles F. Elmes, Vice President; Joseph T. Bowen, Secretary; and N. K. Fairbank Treasurer.

It is stated that both the Rush Medical College and the College of Physicians and Surgeons of this city have offered to give up their entire property to the Chicago University and the faculties to resign unconditionally in order that a medical department may be organized on a level with other schools in this already wonderfully well organized institution. It is stated that $1,000,000 is in sight for the endowment of such a medical department.

The acetamide of eugenol, which is contained in oil of cloves, has recently been prepared as a new substitute for cocaine. It occurs in crystalline form, and appears to enjoy the property of producing local anesthesia in a very high degree. It may be used similarly to cocaine for this purpose, and, as it has no caustic action and is an energetic antiseptic, it may be found to be even superior to cocaine for minor operations on the mucous membranes.

At the recent annual meeting of the Tri-State Medical Society of Alabama, Georgia and Tennessee, the following officers were elected for the coming year: President, Dr. Richard Douglas, Nashville, Tenn.; Vice Presidents, Dr. Robert M. Hardin, Calhoun, Ga.; Dr. R. M. Cunningham, Birmingham, Ala., and Dr. Y. L. Abernathy, Hill City, Tenn.; Secretary, Dr. Frank T. Smith, Chattanooga, Tenn.; Treasurer, Dr. W. C. Townes, and Recorder, Dr. W. L. Gahagan.

Miss. Mary E. Garrett, of Baltimore, who two years ago gave $50,000 toward a fund for the endowment of a medical department for women in Johns Hopkins University, has now offered the university $306,977, the amount required to complete the endowment fund of $500,000. The trustees have accepted the gift, which is to

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be called the Mary E. Garrett fund. Fifty thousand dollars of the amount is to be used for the erection of a building to be called the "Women's Fund Memorial Building."

Dr. GUISTO CORONEDI has tested the value of bromide of strontium as a sedative for vomiting, and reports that it is effective not only in the so-called nervous vomiting, but also in the vomiting which appears as a symptom of gastric affections. He uses the salt in solid form and in doses of from fifteen to forty-five grains daily, the dose being given immediately before or immediately after meals. He considers the strontium salt more effective than any other of the bromine preparations, menthol, opium or belladonna.

Dr. F. B. HYLAND, of Stoughton, Wis., recently appeared in the Probate Court and presented a claim of $245 against the estate of Phoebe Carter. He said the money was due for 147 magnetic treatments he gave Mrs. Carter. Cross-examination on the part of the Court developed the fact that Mrs. Carter was in Florida when the alleged treatment had been given, and that the treatment was in the shape of prayers. The Court concluded that Mrs. Carter was not benefited by the treatment, as she was in another climate at the time, and he disallowed the claim. Dr. Hyland took an appeal.

The annual meeting of the Southern Surgical and Gynecological Association held at Louisville, November 15, 16 and 17. At Louisville was a great success. The next meeting will be at New Orleans, Louisana, and will convene November 7th. The chairman of the committee of arrangements is Dr. Albert Miles. The following officers were elected: President, Dr. Bedford Brown, of Alexandria, Va.; Vice Presidents, Drs. Joseph Price, of Philadelphia and George A. Baxter, of Chattanooga; Secretary, Dr. W. E. B. Davis, of Birmingham, Ala.; Treasurer, Dr. Harden P. Cochrane also of Birmingham.

Dr. CHARLES A. L. REED, of Cincinnati, reported at the meeting of the American Association of Obstetricians and Gynecologists a series of twenty-five cases of vaginal hysterectomy for carcinoma with only two primary deaths. Of these, fourteen were of more than two years standing. In seven of these fourteen, the disease had existed for six months or more before the operation. All these patients have died. The other seven had had the disease for an average of four months before operation, and only one has since died. From these statistics Dr. Reed concludes that total extirpation as soon as positive diagnosis is made is the only treatment for

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carcinoma of the uterus. The mortality ought not to exceed five to eight per cent.

At the annual meeting of the American Electro-Therapeutic Association in New York, October 4th, 5th and 6th, the following officers were elected: President, Dr. Augustin H. Goelet, of New York; Vice Presidents, Dr. Wm. F. Hutchinson, Providence, R. I.; Dr. W. J. Herdman, Ann Arbor, Mich.; Secretary, Dr. M. A. Cleaves, New York; Treasurer, Dr. R. J. Nunn, Savannah, Ga. Executive Council, Dr. W. J. Morton, New York; Dr. G. Betten Massey, Philadelphia; Dr. Robert Newman, New York; Dr. Chas. R. Dickson, Toronto, Ontario, and Dr. J. H. Kellogg. The next meeting is to be held in Chicago September 12th, 13th and 14th, 1893. Dr. Franklin H. Martin, 36 Washington Street, has been appointed Chairman of the Committee of Arrangements.

The first quinquennial prize of one thousand dollars under the will of the late Samuel D. Gross, M. D., will be awarded in 1893. The conditions annexed by the testator are that the prize "shall be awarded every five years to the writer of the best original essay, not exceeding one hundred and fifty printed pages, octavo in length, illustrative of some subject in Surgical Pathology or Surgical Practice, founded upon original investigations, the candidates for the prize to be American citizens." The essays, which must be written in the English language, should be sent to Dr. J. Ewing Mears, 1429 Walnut street, Philadelphia, before June 1, 1893. Each essay must be distinguished by a motto, and accompanied by a sealed envelope bearing the same motto, and containing the name and address of the writer. No envelope will be opened except that which accompanies the successful essay.

The American Subcommittee of the Eleventh International Medical Congress, to be held in Rome, September 24th to October 1st, 1893, has the following membership: W. T. Briggs, Nashville, Tenn.; H. P. Bowditch, Boston, Mass.; S. C. Busey, Washington, D. C.: C. Cushing, San Francisco, Cal.; N. S. Davis, Sr., Chicago, Ill.; A. Jacobi, New York, Chairman; Norman W. Kingsley, D. D. S., New York; William Osler, Baltimore, Md.; William Pepper, Philadelphia, Pa.; F. Peyre Porcher, Charleston, S. C.; Charles A. L. Reed, Cincinnati, Ohio; D. B. St. John Roosa, New York; Alex. J. C. Skene, Brooklyn, N. Y.; and James Stewart, Montreal, Can.

Professor Baccelli announces that the Congress will be opened by King Humbert in person. The meetings will be held at the new Polyclinic Hospital, outside the Porta Pia.

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The Medical Staff of Cook County Hospital replies to the charges made against it by Warden Deal, and to the recent findings of the Grand Jury. The reply details the composition of the medical staff, who are all men of repute, and many of whom have a national and international reputation. The visits of attending physicians are regulated by the rules of the hospital. Internes are not students, but graduates selected by strict competitive examination. Internes moreover are not allowed to take charge of a department or to perform operations even under the supervision of a member of the attending staff until they have served as assistants for one year. The reply scores Warden Deal as incompetent and economical to the exclusion of humanity or relief of suffering, and suggests that he would have made an excellent warden for Libby or Andersonville. If all this disagreement, bickering and evil speaking result in more humane treatment of the sick poor, and in proper appreciation by the authorities of the services of the attending staff, some good will have been accomplished by the controversy.

THE MEDICO-CLIMATOLOGICAL CONGRESS. Congress convenes in Chicago May, 29, 1893. Some of the most noted climatologists in the world will present papers. The following partial programme has been prepared: Address of welcome by Dr. Roland G. Curtain, President American Climatological Association; The Climate of Davos Platz, by Dr. Wm. R. Huggard, Davos Platz; The Influence of Meteorological Changes upon the Course of Bacilliary Phthisis Pulmonalis, by Dr. Detweiler, Falkenstein, Germany; Characteristics of Japanese Climate and Diseases Produced by its Peculiarities, by Dr. Jno. C. Berry, Tokio, Japan; Eye Diseases in Japan, by Dr. Whitney, Tokio, Japan; The Climatic Effects upon the Eye of the Climate of the West Indies, by Dr. Juan Santos Fernandez, Havana, W. I.; The Climate of the Hawaian Islands, Dr. M. Coan, New York; The Climate of the Windward Islands, by Dr. J. M. Scudder, Cinncinnati, Ohio; Sea Voyages, their Advantages in Certain Diseases, by Dr. M. Charteris, Gasgen Scotland; Exercises for Pulmonary Invalids, by Dr. Charles E. Dennison, Denver, Colo.; Peculiarities of Climate in Illinois, and their Relation to Diseases of Pulmonary Organs, by Dr. John A. Robison, Chicago, Ills.; The Climatological Factors Concerned in the Transmission of Yellow Fever, also, the "Modus Operandi" of Climatological Factors in the Development of Infectious Diseases, by Dr. Chas. Finlay, Havana, W. I.; The Relation of Rainfall to Disease, by D. W. J. Harris, St. Louis, Mo.; What more can the

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Weather Bureaus do to Aid Climatologists and Disseminate Climatological Knowledge, by Mark W. Harrington, Chief of Weather Bureau, Washington, D. C.; The Climate and Diseases of Persia, by Dr. W. W. Torrence, Teheran, Persia; All Physicians Interested in climatology who desire to present papers before this Congress are requested to send topics and addresses to the undersigned. All medical journals are requested to publish the above programme. JOHN A. ROBISON, M. D., Chairman Sub-committee on Programme, 297 Ashland boulevard, Chicago.

Therapeutic Memoranda.

RED BILBERRY (*Taccinium vitis idæa*) IN ARTICULAR RHEUMATISM.

The red bilberry is a popular remedy in Siberia for rheumatism. Smirnoff (*Rep. de Pharm.*, July 10, 1892) reports excellent results from decoctions of the whole plant, in doses of thirty to sixty grammes to a pint of water. This drink should be taken for three months steadily. It is especially efficacious where salicylates, iodides, and antipyrin fails.—*Med. Record.*

ZINC GLUE FOR STIFF SURGICAL DRESSINGS.

Trentler recommends a preparation, first suggested by Unna, suitable for dressings for fractures and dislocations:

℞ Oxide of Zinc.....10 parts.
Gelatine.....30 "
Glycerine.....30 "
Water.....30 "

Apply thickly, rubbing into the muslin or gauze forming the bandage.

INJECTION FOR CATARRH OF THE BLADDER.

Mosetig uses the following prescription in catarrh of the bladder:

℞. Iodoform, ℥iss;
Glycerin, ℥x;
Boiled distilled water, ℥iiss;
Gum tragacanth, gr. iv.

Wash the bladder out with warm water which has been boiled, and afterward inject for three days a tablespoonful of the mixture named in a pint of water. It is stated that three or four injections are ordinarily sufficient to cure chronic cases of cystitis.—*L'Union Médicale.*

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Original Articles.

SKIN GRAFTING UPON THE CRANIUM.

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The patient I present this evening has been cured for five years. I exhibited her before the American Medical Association in the spring of 1887, when the new scalp covered about three-fourths of the skull. In September, 1887, the case was reported to the International Medical Congress in Washington. At this time there remained an open spot upon the head corresponding to the dimensions of a silver half dollar; a month later this was also covered. The scalp is complete and has been in this condition ever since November, 1887. It may now be appropriately entered upon record as a cure.

Since the subject of skin grafting was first introduced by M. M. Reverdin and Frank Hamilton, innumerable and varied trials have been made to close wounds by this procedure, with variable degrees of success, all over the civilized world, but an extensive search of the medical literature gives very meager information concerning skin grafting upon the cranium.

This young lady, twenty-four years of age, was at work in a laundry under a revolving shaft, July 9th, 1886. The shaft was between four and five cm. below a heavy beam, and about twenty-five cm. above the floor; it was making 225 revolutions a minute, as computed by the engineer. The girl was said to have reached up for something on the wall, when the wind blew her

Presented before the Chicago Medical Society.

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hair toward the shaft. Instantly she was drawn against the beam and shaft, and fell back to the floor without her scalp.

The narrow space between the shaft and beam doubtless saved her life. She then walked up stairs, the accident occurred in a basement, where I found her sitting in a chair moaning pit-

eously, presenting a most ghastly, heartrending appearance. The entire skull was laid bare, from the margin of the eyelids to the neck. The nasal bones were uncovered and broken, exposing the superior nasal meatuses. The skin of the eyelids was removed from within three mm. of their edges. The border of the wound was traceable from the lower portion of the left external angular process of the frontal bone and margin of the left upper eyelid, downward and backward below the left ear, which was entirely

removed; thence the wound extended across the neck five cm. below the superior curved line of the occipital bone, and could be traced forward through the lower third of the right auricle to the right external angular process of the frontal bone and margin of the right upper eyelid, across the right lid, nose, and the left lid to the point of commencement. The superior border of the left zygomatic process was broken, exposing the cavity within the

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process. Every vessel and nerve supplying the scalp was torn off, and the pericranium was lost in three places; one spot, corresponding to the center of the forehead, was oval in contour and measured 5x7 cm.

The other exposed surfaces of the bones were located on either side of the calvarium, on the corresponding parietal and temporal bones; were elliptical, eight cm. long, six cm. wide. The neck flap of the wound fell away from the muscular structures beneath it, exposing the trapezins muscle almost half way to the shoulder-blades. The trachelo and sterno-mastoid muscles were

also uncovered, the latter to the extent of ten cm. The right ear was torn through its lower third, and hung at the side of the neck by an isthmus of skin less than five mm. in width. The exposed surface of the wound measured 45 cm. in length from before backward, and 39 cm. in width near its central portion. The sutures of the cranium were distinctly seen at several places.

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There were only a few muscular fibers left upon the head—a portion of the temporal muscles on either side, and the levator palpebræ muscles in the orbits. Hemorrhage was profuse; the temporal, occipital and posterior auricular arteries had to be tied.

I came to the patient within three-fourths of an hour after accident occurred. Controlled hemorrhage, examined the scalp, wrapped the head up in carbolized gauze. The scalp was thoroughly mangled and covered with fragments of hair on its inner surface, which had to be removed. In order to save time, I sent for my friend and neighbor, Dr. J. D. Skeer, to assist in the immediate treatment of the case. Dipped the scalp in warm carbolized water, picked off the broken hairs from its inner surface, and cut off the hair from the outer surface, while Dr. Skeer prepared the head for the reception of the scalp. Together we freshened the edges of the wound, stitched the scalp back by continuous suture, and sewed the right ear in its position. Applied iodoform over the entire suture, and coiled small narrow sacks filled with warm sand about the head to keep the scalp warm.

After three days, uncovered the head and cut through the scalp in several places to let out the pus which had accumulated beneath it. On the seventh day removed all dressings. The scalp was now permeated with gases of decomposition, and baked firmly against the calvarium in many places. Removed it. The right ear was warm and joined at the sutures. During the first three weeks we had little hope for the patient's life. Her pulse varied from 90 to 130 per minute, while the temperature fluctuated between 100° and 104° F. Was delirious about three weeks, having lucid intervals; her head had to be propped up with pillows. After the second week her neck became stiff, the muscles were rigid, neck turning to one side. To overcome this tendency, had the bed turned so that it became necessary for the patient to move her neck in the opposite direction. Also had her exercise the neck by rotating and bending it. The optic nerves were extremely sensitive. Vision weak at $\frac{4}{20}$. She complained of noises in both ears. Hearing distance, right ear, $\frac{6}{40}$; left ear watch C. During the fifth week she left her bed and walked about the room.

Six weeks from the day the accident occurred, I concluded that skin grafting might be most promising of satisfactory results. Suppuration was very free at this time, and the patient was too feeble to permit of any treatment requiring extensive operative procedure. I therefore, on the 15th day of August, took thirteen epidermal grafts from the flexor side of her sister's arm and placed them upon the patient's eye-lids four mm. apart. By way of ex-

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periment, four of them were placed upon the center of the cranium in direct contact with the granulation tissue, the others near the edge of the wound upon the eyelids where there was the least suppuration. The head at this time was covered with granulations from the pericranium, excepting in places where the periosteum was lost; these were gradually covering in also, from their margins. The grafts were held in place with fish skin, and the bandages were permitted to remain in position forty-eight hours, when the four grafts upon the vertex presented a pink color, and five of the grafts over the eyelids were washed away by the pus. I then attached eighteen grafts, eight on top and ten near the margin, as before. After another forty-eight hours all on the top of the head were pink, the four previously planted were spreading. Those near the margin of the wound remainded also, but did not look as good.

The constant accumulation of pus interfered with the growth of the marginal grafts. I was therefore lured on to place the greater portion of them near the vertex in semicircles, coming forward to meet those which were growing over the lids. October 12th, my notes say there is a piece of transparent skin, thirteen cm. long and seven cm. wide, extending from the eyelids backward, besides twenty pieces, varying in size from a ten cent piece to a quarter of a dollar, upon the sides. On the 15th of October noticed that the new skin began to liquefy in spots. October 17th, 2 o'clock A. M. a copious hemorrhage occurred from one of the venous channels between the tables of the right parietal bone; the blood ran forward and to the left side, beneath the front half of the new skin, which was thus destroyed. A few days later the other half was perforated by many small ulcers. In ten days more it also disappeared. Over two month's work was destroyed in as many weeks. The amount of tissue lost would be represented in one piece by an oval measuring fifteen cm. by eleven cm., to produce which 915 grafts were required. Although somewhat discouraged by this disaster, we were not dismayed, but endeavored to retrieve our loss by vigorous grafting.

Having noticed that the skin derived from the epidermis, chiefly, was very thin, immovable and short lived, I resorted to dermal grafting, picking up each time, also, a few fibers of subcutaneous connective tissue. Suppuration having greatly diminished, all of them were placed about the circumference of the wound. About sixty-five per cent lived. During this month, November, two irregular pieces of bone measuring 3x2 cm., were removed from the outer table, where the pericranium was gone.

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December 1st, there was an irregular band of skin around the entire head, six cm. wide in front, and four cm. wide at the back and sides. The last two series of grafts did not thrive. Up to this time heterodermal grafts only were brought into requisition from her sister and three brothers. As the patient was now able to walk out of doors, she gained in strength, and the thought occurred to us—Dr. Skeer, who called to see her at this time, and myself—that tissue taken from her own person might do better than the heterodermal material. On the 24th of December commenced taking grafts from her left arm. The rapidity of the growth of her own grafts was simply marvelous. For example: One day thirty were placed in a double row, set three mm. apart. In thirty-six hours they put on a pink color. Three days later they were joined in one piece. The connecting parts were slightly depressed, and of course quite thin. By the eighteenth day a few hair like vessels were detected in the new tissue. Eight times after our first misfortune, numerous ulcers started at different places. At one time there were eighteen of them. They were evidently caused by the contraction of the subcutaneous tissue, whereby the fine vessels were broken.

Many of the ulcers healed of themselves, but the larger ones were assisted by autoplastic grafts; 4,500 grafts were planted, of which the patient supplied 1,800.

May 1st, 1887, 10th month, there remained uncovered four spots, each a trifle larger than a silver dollar. I expected to complete the scalp in four weeks, when suddenly her strength gave out. She took a severe cold, suppurative inflammation of the left middle ear followed, the mastoid process became very tender, and a dozen new ulcers appeared; two large ones, each about twelve cm. long and from one to three cm. wide. The combined area of all might have been represented by a circle sixteen cm. in diameter. The patient was almost disheartened; she slept only three hours of a night for three weeks; her head ached, sight grew dim, and I feared leptomeningitis was about to occur. Gave her opiates and tonics. After three week's depression she reacted, when grafting was assumed. Occasional discouragements have been met with since, but now she feels good; says the head and eyes seem as strong as before the accident occurred. Her hearing has greatly improved also.

From the beginning, the entire wound was treated antiseptically with carbolic acid, iodoform, and corrosive sublimate. It was dressed with strips of carbolized gauze prepared with 2½ per cent solution. The strips were 6 cm. wide, 30 to 35 cm. long. A layer

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of them, which came in direct contact with the granulations, was anointed with vaseline, so that it could be readily removed, then a series of strips was superimposed upon each other; next a piece of lint covered on one side with vaseline was placed over these and external to the lint a roller bandage made of cheese cloth was wrapped about the head. This formed convenient and serviceable dressing. The lint and strips were easily removed. The interstices of the gauze, by capillary attraction, drew the pus from the wound's surface; the lint prevented too rapid evaporation, whereby the dressings were prevented from baking against the wound. The outer bandage retained the other parts in place. Thinking the lint heated the head, by way of experiment it was left off; but each time the dressing were stuck against the cranium, so that they were removed with difficulty, therefore continued using it.

At first the grafts were held in place by means of a piece of fish skin, which after thirty-six hours began to liquefy, and could be removed with a sponge. Repeated experiments caused me to discard this. The fish skin would break down, commingle with the pus and help to macerate the grafts. Next tried McIntosh dressing. This heated the tissue too much, and the grafts were often found floating in the pus beneath it. Having observed that the secretion always clung to the gauze dressing, that as a rule the thicker the layer of gauze used, the less discharge remained upon the wound's surface, I concluded to place a pad of oiled carbolized gauze upon the grafts instead of the rubber or fish skin. This worked remarkably well. Six or eight thicknesses of gauze, extending two or three cm. beyond the grafts in all directions, were applied. This had the desired effect of absorbing the pus, reducing the heat to a minimum, while the grafts generally remained in place. The grafts usually assumed a pinkish appearance in forty-eight hours. Occasionally a series of the autoplastic grafts, when the patient felt exceptionably good, would be almost pink in twenty-four hours. Many of them, however, gave no evidence of being alive until after seventy-two hours. Several times grafts which hung to the dressings, covered with serum after forty-eight hours, being replaced, took hold and lived.

The progress of the growth of the new skin was similar to the description of M. Riverdin. A narrow, one mm. zone of hyaline tissue, somewhat depressed, surrounded the grafts in ninety-six hours; this grew with variable degrees of rapidity until the grafts were joined, then it grew thicker and thicker. After three weeks, sometimes a few days earlier or later, fine vessels were traceable

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in this new tissue; these increased in size until the skin was literally a network of vessels. As they continued developing it was noticed that the larger ones were directed upward. Later some of them assumed very nearly the position of the normal arteries, like the temporal, occipital, etc. Now many of them have a bluish color, being evidently veins. The grafts were derived from her sister, three brothers, and herself, aged respectively seventeen, nineteen, twenty-four, twenty-seven and thirty years. They varied in size averaging about four by three mm., the central portion consisted of the entire derma with subcutaneous tissue, its margin portion comprised epidermis only. Simply a fold of the skin was lifted with the sclerotica forceps and hastily snipped with iris scissors. When removed their under surfaces curved inward. They were then spread out and laid in direct contact with the granulations. The peculiar form of the grafts seemed to exert a favorable influence upon them. Their inward curvature caused them to cling closely to the granulations and an immediate suction action took place. The patient said she could feel them draw as soon as they rested upon the head. I have no doubt that the empty vessels in the grafts expedited this process.

Many times grafts six by seven cm. were tried without success. Tissue with hair was also applied; but the hair bulbs atrophied. Ten to one hundred grafts were planted at a sitting. Most of the time twenty to thirty only were used. Usually two days intervened between the graftings. Frequently however, several week's rest had to be given the patient, on account of her weak condition.

All of the skin from the margin of the superior eyelids upward presents the characteristics of the normal skin. It is pliable, soft and movable. The lower half can be pinched up in folds. It imparts a velvety sensation to the fingers when touched. Furrows with pores opening into them are plainly visible with the hand glass. Follicles are abundantly present.

Her head sweats freely all over, and the new skin feels to the patient like the skin in other portions of her body. The eyelids are somewhat retracted, less, however, than they were four months ago. The younger portion of the tissue appears quite red, myriads of small vessels can be seen in it. As the skin grows older, the smaller vessels gradually disappear from view ; others appear larger; the integument assumes a more normal appearance as to color and consistency. It also becomes more movable, owing to the development of subcutaneous connective tissue. One cannot

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see where the new skin begins upon the eyelids. The lids close perfectly so that the lady sleeps with closed eyes.

Our works on surgery give no statistics, although at different times such accidents have occurred in the manufacturing States of our country. After having written many letters to physicians for information, concerning cases which came under their observation or treatment, I received responses from two only. I have imperfect reports to give of six cases:

CASE I. A girl, nineteen years of age, lost her scalp fourteen years ago, in the Elgin Watch Factory, Elgin, Ill. Dr. E. Powell, of Chicago, informed me that the wound extended across the forehead above the eyebrows, and that her ears were not touched. Skin grafting was tried repeatedly in this case, with no results. Was told by a surgeon who saw her more recently that one of her eyes was lost since by exposure occasioned by retraction of the eyelids.

CASE II. Gross' "Surgery," last edition, makes mention of a young lady who lost her scalp in a factory in Philadelphia, 1869. He simply says the wound cicatrized over.

CASE III. Reported in the "Surgical History of the War," Part I, p. 315. A conductor on the Union Pacific Railroad was scalped by the Sioux Indians, near Cheyenne, in 1869. Wound as indicated by the illustration given, was elliptical, measured about 10 x 8 cm. A portion of the outer table of the cranium was removed. The wound healed over.

CASE IV. Reported by her employer, Mr. E. F. Smith. Miss Hattie Thomas, at Union City, Conn., March 29th, 1871, in a button factory, placed her head under a swift-running shaft, to pick up a button when her hair was caught by the shaft and her scalp taken off from the nape of her neck to her eyebrows. Her physician was Dr. S. C. Bartlett, now deceased. He cleaned the scalp and placed it upon the head about two hours after it was torn off, but it did not stay long. Then commenced skin planting. Had the head almost covered twice. Each time it was lost. A third effort proved successful in healing the wound, so that she was able to work after two years.

CASE V. Miss Newman, Bristol, Conn., had her scalp torn off by her hair catching in the machinery in a mill where she was at work during the past winter. The entire scalp was gone, an eyelid and an ear slightly torn. She was treated by Drs. Wilson and W. E. Way, of Bristol. Result of treatment not given. "The Hartford Times," of last July, contained an advertisement for volunteers to furnish skin for grafting.

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CASE VI. Reported by Dr. W. W. Horton, of Unionville, Conn., June 12th, 1885. Rosa Flynn had her entire scalp torn off by her hair catching in the shafting of a paper-mill, Unionville, Conn. The scalp was torn from the back of the neck around, just above each ear to the nose, taking the eyebrows. There was also a flap torn down the right side of the face nearly to the mouth. I treated her for one month, then sent her to the Hartford Hospital, where skin-grafting was tried. Both human and rabbit skin was used. It was a failure. Lids are retracted. The wound is still open. Hemorrhage occurs from the capillaries when her head gets on a lower level than her body. Expect the wound will cicatrize over in another year. It will be noticed that in none of these cases was the wound as extensive as in the one under consideration.

Deductions from experience in this case.

1. When grafts are set within five mm. of each other, a stronger skin is produced than when they are placed further apart.

2. A graft will grow to many times its dimensions, so that a circular graft three mm. in diameter will form a piece of skin eighteen mm. wide, but the skin will not be as strong or of as good a quality as when the grafts are closer together.

3. Dermal grafts with a few fibers of connective tissue form a smooth, soft, pliable movable skin, presenting the characteristics of normal integument.

4. Epidermis placed upon the cranium produces only a thin film, which ulcerates readily.

5. Auto-dermal grafts are more reliable than hetero-dermal grafts, providing the subject is healthy.

6. Grafts from a person near the patient's own age do better than from one much older or younger.

7. With dermal grafts the follicles are preserved, whereby the patient is made more comfortable, the skin produced is more natural, hence more durable.

8. The most reliable skin is formed by grafting about the circumference of the wound, say one or two rows, producing a narrow strip one cm. wide, and waiting until the blood vessels are well developed in it, then plant another series close to the last ones. By this plan, contraction in the marginal tissues takes place in advance of the subsequent graftings, diminishing the liability for the ulcerative process to occur by reason of such contraction.

9. The new skin is fed by the tissue upon which it rests, probably by osmosis, but depends for its permanent sustenance upon the vessels growing into it from the circumferential tissue. This fact is thoroughly established in my mind, as it was fre-

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quently demonstrated by the death of patches of new skin removed from the marginal tissue. Time and material can therefore be saved by constantly grafting from the circumference, in large wounds.

10. All things considered, grafts will grow better in a new wound than in an old one; and the more recent the wound the more certain are they to thrive. In the present case, during the last three months, notwithstanding the improved physical condition of the patient, only twenty per cent of the autodermal grafts took, while six months ago eighty-five per cent could be depended upon.

582 WASHINGTON BOULEVARD.

A REPORT OF LAPAROTOMIES PERFORMED IN THE TWELVE MONTHS ENDING NOVEMBER 22, 1892.

ONE HUNDRED AND TWENTY-ONE CASES WITH FIFTEEN DEATHS.

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In presenting the following remarks upon twelve months of abdominal surgery, it is desired to give a very brief analysis of the 121 operations, and to make comment on some selected cases from this number. It will be seen that fifty-two operations were performed for ovarian disease, twenty-nine for uterine maladies, twenty for disorders of the tubes and ovaries, while the remainder of the cases include disorders of the peritoneum and ovaries, unclassified conditions, including extra-uterine pregnancy, splenic tumor, abscess of the gall bladder, hematocele, a fibroma of the abdominal wall, and exploratory laparotomies. Fifteen of these cases resulted fatally, nine of the fifteen deaths occurring in the Presbyterian Hospital, and six in private residences. Of the 121 cases 115 were performed in the Presbyterian Hospital, and six were done in private houses. It might be interesting to give the particulars of the fifteen cases, but it has been thought best not to do it, but rather to select a few unusual and interesting cases for mention in detail.

	CASES	DEATHS
Ovary—Single Cyst	21	2
Ovary—Double Cyst	7	
Ovary—Suppurating Cyst	1	

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Ovary—Dermoid Cyst	3	
Ovary—Intraligamentous Cyst	4	1
Ovary—Hæmatoma of	6	
Ovary—Papilloma of	1	
Ovary—Sarcoma, Double	1	
Ovary—Batty's Operations for Epilepsy	1	
Ovary—Abscess of	2	
Ovary—Chronic Inflammation	5	1
Uterus—Fibroma. Removal of tubes and ovaries,	8	1
Uterus—Fibroma. Abdominal Hysterectomy	11	2
Uterus—Fibro-cystoma	1	
Uterus—Retroversion. Hysterorrhaphy	9	1
Fallopian Tubes—Suppuration, inflammation of	5	10
Tubes—Chronic inflammation, with and without suppuration, and adhesions		
Ovaries—Chronic inflammations, blood cysts, cysts	15	
Peritoneum—Tuberculosis of	2	1
Peritoneum—Cysts of	3	
Peritoneum—Chronic inflammation of	2	
Pelvic abscesses, large, origin not traceable	5	1
Extra-Uterine pregnancy	2	1
Spleen—Hypertrophy	1	1
Gall Bladder—Abscess of	1	1
Hematocele	1	
Abdominal wall—Fibroma of	1	
Exploratory laparotomy	2	1
Total	121	15

Concerning the technique of laparotomies, it may be mentioned that the utmost antiseptic precautions were rigidly observed in every case. No better evidence of the success of these precautions can be furnished than the mention of the fact that in but one case was pus seen upon the removal of the sutures. In this case the removal of the two lower stitches was followed by the escape of five or six drops of pus from each stitch hole. The subsequent dressing of the wound revealed the fact that not another drop of pus was secreted. While this does not show the presence of so-called stitch hole abscess, it is amply sufficient to indicate a very minor antiseptic defect somewhere. The comparative thoroughness in the antiseptic precautions for the cases has entirely allayed the fear or sepsis in laparotomies. The contrast of this phase of the work with the amount of sepsis occurring five or six years ago is worthy of the most emphatic comment. Then the one terror of

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this work was septic inflammation; to-day that aspect of abdominal work seems to have been nearly obliterated.

It may be interesting to make a statement concerning the length of time of operation in many of these cases. In opening the abdomen it is the exception when more than two minutes of time are occupied. In very many of the cases the abdomen was opened in less than thirty seconds. Early in the series the clamping of all bleeding vessels, as the work of the opening progressed, was adopted, but later it was found that, excepting in the severing of the larger vessels, it was quite unnecessary to delay long enough to use catch forceps; instead thereof rapid sponging was all that was required. The work of cutting progressed proportionately more rapidly than when the forceps were used.

The first incision is easily made down to the sheath of the muscle with one sweep of the knife, through the integument and subcutaneous fat to the sheath of the recti. By rapid work the sheath is incised the desired length, and where necessary dissected off upon either side to secure the median line. As soon as the inter-muscular layer of fat is reached it is grasped by two dissecting forceps, held by the operator and his assistant, quickly raised, divided between the forceps until the peritoneum is reached which in turn is seized and pulled forward, up out of the abdomen where its transparency indicates the absence of any intestinal loop. It is then opened and the forefinger of one hand thrust in and the peritoneum drawn forward still further, when the forefinger of the other hand is thrust in beside the first one, and immediately the peritoneum is torn open the length of the wound by forcibly separating the fingers. In many cases the peritoneal cavity has been opened in from ten to twenty seconds. When more than two minutes are required in accomplishing it, the work is regarded as progressing slowly. Mention is made of this fact of rapid work to contrast strongly with the length of time employed years ago in doing the very same thing. I have very often seen five, ten or even fifteen minutes occupied in opening the abdomen in years agone. Excepting when the hemorrhage is free, or some adhesions exist in the abdominal cavity, two minutes are regarded as a sufficiently long time to open the cavity. Many oöphorectomies and ovariotomies are completed in from six to nine minutes. In simple cases the patient is turned over to the nurses for dressing the wound, with the operation completed in twelve to eighteen minutes. Then, again, in other complicated and bad cases an hour and a half, rarely two and a half hours, have been consumed. These remarks are made in view of the fact that celerity in ab-

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dominal operation is a most desirable feature in the avoidance of shock from the exposure of the open peritoneal cavity.

In several cases it has been thought that much benefit has been derived, previous to the time of operating, from attempts at allaying existing active pelvic inflammation by keeping the patient in bed quietly, giving her a daily laxative, diuretic, and the use, two or four times a day, of a protracted, hot vaginal douche. The use of hot water has been tried in the following manner: A bivalve Higby speculum is introduced into the vagina and opened to its widest extent, packed with gauze, in the center of which a douche point is carried up to the vault of the vagina, the patient being placed on a self-discharging bed pan. A very small stream of hot water is kept running for a space of twenty or forty minutes at each application. The advantage of this method consists of the large extent of surface presented by the packing through which the hot water percolates. The most particular stress is placed upon the fact that the water is as hot as the patient can bear. The improvement of patients with tubal and ovarian inflammation under this line of treatment has been rapid and in many cases astonishing. In some of them total anchylosis of the pelvic organs has given way to a considerable freedom of motion of these organs. In many of them the tenderness has been diminished greatly and the pains have diminished or disappeared. In some cases the symptoms improved to such extent that the patient felt that the operation was not necessary.

Between fifty and sixty of these laparotomies were performed in the clinical amphitheater of the Rush Medical College before hundreds of students. This statement is made to illustrate the fact that such a place is not a barrier to abdominal surgery. The percentage of recoveries of these clinic operations is fully as satisfactory as it is in the laparotomy operating room of the hospital. It shows that an atmosphere befouled by the presence of large audiences is not at all inimical to laparotomies. It only emphasizes the clinical truth that the chief danger in abdominal sections lies in what is put into the abdomen by unclean hands, instruments, sponges, and ligatures. Enlightened by this truth, the only safety from infection lies in the universally accepted measure of securing the perfect cleanliness of everything coming in contact with the operation. The perfection of asepticising sponges is easily attainable. Those used in these laparotomies are kept in a five per cent solution of carbolic acid, in six jars, lettered with the names of the working days of the week. One set only is used in one day. Where two or three laparotomies are performed on one day, that

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day's sponges are used as well as those of the preceding two days. After using one set of sponges they are made absolutely clean before they are returned to their jar. A great multiplicity of instruments is objectionable because of the increased labor of rendering them aseptic. The fewer that one uses the more certain is success to follow. A laparotomist of average skill can easily and advantageously dispense with about fifty per cent of modern surgical devices. Dr. Sutton, of Pittsburgh, pithily remarks: "I have heard of a surgeon, who, on one occasion, attacked a parovarion cyst with seventeen trays full of instruments, and who, at the end of an hour and forty-five minutes, by the grace of God, completed the operation. Inasmuch as this surgeon was a man of wide experience, I concluded that the instruments were for display, and that the time was consumed in making it. If this conclusion was erroneous it was at least charitable."

The following cases are of unusual interest:

CASE VIII. *Multilobular uterine fibroid filling the entire pelvis.*—Its pressure symptoms were producing such great pain that life was unbearable. The incision from one inch above the umbilicus to the pubes was made without event. Tumor brought up in the angle of the wound. Broad ligaments were very short and great difficulty was experienced in tying them off. The elastic ligature was used and the tumor amputated very low down. Stump removed through the vagina by the vaginal hysterectomy method. Forci-pressure was used to control hemorrhage through the vaginal arteries. Forceps removed in thirty-two hours without hemorrhage. Left vaginal artery uncommonly large and bled profusely at the time of the operation. After the removal of the cervix the ligature slipped off of the right broad ligament, hemorrhage following, which was controlled by fresh ligatures. Ligatures and continuous sutures were used to close the peritoneal cavity. Before the close of the operation the patient had lost much blood and was somewhat exsanguinated. The interesting feature of this case is the rapid recovery of this patient from the operation in which the entire uterus was removed, a recovery far more rapid than when the cervix is not removed.

CASE XXXVIII. This case was first seen in Pullman, March 3d, 1892. She had been in bed five days, with rising pulse and temperature, and complaining of pain in the left iliac fossa. A bulging mass could be felt through the abdominal wall, which was found by digital examination. It occupied the left half of the pelvic cavity, crowding the uterus into the right iliac fossa. She was flowing freely at the time and from this fact as well as that the

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menses had been absent for nine weeks previously, a thorough examination was postponed until she could be taken to the Presbyterian Hospital. In forty-eight hours she was removed to the hospital, her general condition becoming more grave, the enlargement growing and the pulse and temperature still rising. The former was 116 and the latter 103.8° upon her arrival at the hospital. Two days later the abdomen was opened, when, upon opening the peritoneal cavity the intestines were found to be most remarkably adherent, not a knuckle being free from adhesions. As the peritoneum was opened a small amount of serous fluid escaped, and as the adhesions were friable they were easily separated, and a finger thrust down into the left iliac fossa. An accumulation of pus was opened, which at once escaped running over the abdominal walls, over the flanks, between the thighs, and up to the breasts. About twenty ounces of pus escaped at that time. No attempt at finding the sac was successful. In seeking for it and breaking down adhesions, some accumulations of grumous colored serum were opened, one after another, whose contents escaped from the abdominal opening. The cavity was flushed out with about fifteen gallons of hot sterilized water introduced through a tube carried down to the floor of the pelvis. A large Mikulicz drainage was introduced, which was removed within thirty hours. Pus continued to discharge in greatly diminished quantities for a period of four weeks. The tract of escape contracted more and more until it would scarcely contain a small uterine sound, which could be carried down into the Douglas cul-de-sac and felt through the vagina.

In twenty-eight days after the operation a second operation was performed with the Paquelin cautery, making an opening through the vault of the vagina, on the end of a uterine sound from above used as a director. To my profound astonishment not a drop of pus escaped. The entire tract was flushed out with hot sterilized water from the abdominal opening down through the vagina. The opening was filled with iodoform gauze, and the vagina was packed with iodoform gauze, after using catch forceps upon an artery, which bled freely at the opening in the vagina. Forceps removed in twenty-four hours without hemorrhage. Gradually the amount of pus discharge from the abdominal opening diminished, and the iodoform gauze packing introduced through the vaginal opening was removed without a drop of pus escaping. This second opening closed in three days and was never heard from again. At the end of eight weeks all the pus discharge stopped and the abdominal opening closed permanently.

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The patient left the hospital at the end of twelve weeks; since then she has completely regained her health, and gained about twenty-five pounds in flesh.

CASE L. *Ovaritis and Salpingitis complicated by Pregnancy.*—A small cyst the size of a hen's egg in the right ovary with uterine anchylosis was diagnosticated. Operation performed April 1st, 1892. Upon opening the abdomen the uterus was found enlarged to the size of a three months' pregnancy; no ovarian cyst existed, but the right ovary and tube were buried out of sight in adhesions. The uterus was drawn over into the right iliac fossa and was well nigh anchylosed. With much difficulty the tube and ovary were removed. The left tube and ovary were normal. The patient made an uninterrupted recovery. The chances of miscarriage were fully explained to the patient before the operation, and she was informed that she would certainly miscarry if she did not go through the operation. She decided to have the operation. On the 1st of October she was delivered of a healthy eight pounds male child, and on the 1st of December she reported that her condition was entirely satisfactory, and that she was nursing her child which was growing rapidly.

CASE LXIII. *Left Par-ovarian Cyst; Right Dermoid Cyst.*—This patient was forty-five years of age. Her last confinement was eighteen or nineteen years ago. For the past seven years she has had such pain in the left iliac fossa that she has been an almost daily user of morphine. A small fluctuating tumor could be felt in the left iliac fossa vaginam, and an indistinct indefinable fullness was found in the right iliac fossa. Upon opening the abdomen the intestines were found adherent to the anterior abdominal wall. The right cyst was removed first, presenting a whitish gray color, the size of a fetal head at term. It was adherent upon its under surface to the extreme bottom of the pelvis. The enucleation was accomplished but the sac was ruptured. The contents were sponged out of the pelvis and the pedicle tied off. This was followed by a furious hemorrhage when the pedicle was again lifted up transfixed and tied a second time. Still there was a free hemorrhage found to arise from below the second ligature. Again the whole mass of the pedicle was brought forward and a third ligature placed which stopped the hemorrhage. The contents of the cyst were blood, and thick like syrup, measuring about sixteen ounces, containing hair and rudimentary teeth.

The cyst upon the left side was blue and very thin walled. The only free surface was the upper one, the remainder of the sac was adherent to the intestines and the surroundings. The omen-

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tum over the descending colon was attached by broad adhesions; these were clamped by heavy snap forceps and divided, the length of its jaws clamped again and then entirely severed. This brought the tumor well into view, and the remainder of the adhesions were easily broken. Gradually the enucleation was accomplished, and the pedicle obtained and tied off, no hemorrhage following. The divided omentum was brought down and tacked along the track of the torn adhesions to prevent, if possible, future intestinal adhesions in the ragged cavity which was left. A large drainage tube was introduced into the left iliac fossa, after flushing out the pelvis with ten gallons of hot sterilized water. This patient ran along very comfortably for forty-eight hours, when she developed a mania which persisted for nearly three weeks. During the ensuing four weeks after the operation she apparently ran a course of typhoid fever. The recovery from the laparotomy was rapid and entirely satisfactory, but the characteristic typhoid temperature which followed for four weeks, together with the abdominal surface and intestinal symptoms indicating the typhoid complications were plainly marked.

The patient left the hospital at the end of five weeks; the lower angle of the abdominal wound reopened after reaching home and continued to discharge a little for a period of three months, at the end of which time, three ligatures were removed that had been used evidently upon the right side of the pelvis. Afterward the wound again closed and the patient now is in better health than she has been in years.

CASE LXXIV. *Two laparotomies on the same patient in thirteen months.* Patient aged thirty-three. April 5th, 1891, a cyst of the left ovary was removed in the Presbyterian Hospital. Another cyst the size of a fetal head developed in the right ovary, and she presented herself for a second laparotomy May 23d, 1892. The incision was attempted through the old cicatrix, and was carried forward with the utmost care, it being found that adhesions to the lower border of the cicatrix existed. In spite of the greatest care an incision an inch long was made through the peritoneal covering of the attached intestine. The opening through the old cicatrix was abandoned, and the incision was made through the abdominal wall below the cicatrix and just above the pubis. It was found that to the entire left side of the abdominal wall there existed a greater or less extent of intestinal adhesions. After exposing the cyst the patient was turned upon the right side, the trocar was plunged into the cyst which was emptied, drawn forward, and tied off. The incision into the peritoneal covering of the intestine was stitched

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with fine silk. The adhesions were so close to the left edge of the incision that it was found impossible to make the sutures penetrate the peritoneal covering of the left side of the incision. Accordingly upon that side they were introduced down to the peritoneum, brought out and introduced in the usual manner. She made a recovery interrupted only by considerable pain, for twelve or fourteen days, produced evidently by the passage of gas through the intestine. At the end of twenty-eight days she left for home in good condition, and has remained so up to the present time.

CASE LXXV.—*Double Salpingitis with Abscess of the Right Ovary.*—The left ovary was found adherent, enucleated with difficulty, brought up into the wound, when it was ruptured and discharged about four ounces of pus over the wound. It was then tied off. The right ovary and tube was found in a mass of adhesions as large as a hen's egg, and, after enucleation, were removed. The abdomen was then flushed out with large quantities of hot water, the wound closed in the usual way and the patient put to bed in good condition. On the eighth day, the stitches were removed and from the middle stitch hole on the left of the wound a free discharge of grumous fluid immediately followed; after an hour or longer it stopped. The next day a very free flow of hemorrhage occurred from the same stitch hole; it soaked the dressings and bands and made a stain on the bed as large as a dinner plate. An iodoform gauze tampon held firmly with adhesive plaster stopped the hemorrhage. On the day following another hemorrhage occurred, at the time appearing from the lower part of the abdominal incision. The sound was introduced into the opening and immediately there gushed forth about five ounces of blood. For several days previous to this hemorrhage the patient had had a temperature, and severe pain to the left of the wound where there appeared a bulging of the abdominal wall which was hard and tender. After the first hemorrhage the temperature fell to the normal, the pain left her and she presented the best condition that she had since the operation. A piece of iodoform gauze was tucked into the opening after the first hemorrhage for the purpose of drainage. Pressure with iodoform gauze was again made and not another drop of fluid appeared and the wound closed. This is the first case of a dissecting hemorrhage occurring in the abdominal wall from the needle that I have ever seen.

65 RANDOLPH STREET.

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THE BICHLORIDE OF GOLD TREATMENT OF DIPSOMANIA.

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Within a comparatively short period of time a new prophet has appeared among us, differing from the Scriptural injunction in that he is without honor save in his own country, and the daily press has teemed with fulsome adulation of the philanthropic gentleman who giving homeopathic doses of a hypothetical compound of gold to his fatuously deluded patients, extracts from them filthy lucre in allopathic masses. A man—

"Who has rolled in money like pigs in mud
Till it seemed to have entered into his blood
By some occult projection.
And his cheeks instead of a healthy hue,
As yellow as any guinea grew,
Making the common phrase seem true,
About a rich complexion."

Even from the pulpit has praise been declared, and ministers of the gospel have announced this new dispensation, a regeneration neither of the spirit nor of water, but of gold, and yet not of honest gold, but an illegitimate vanity, for I need not tell you that chemically speaking gold has the following quantivalence, to-wit: 1 and 3, and therefore while we can have a gold mono- and trichloride, a bichloride is an impossibility.

On every hand men have been pointed out to us as having been plucked from the burning, and attention has been called to families whose hearthstones have been saved from ruin, by the angel of the auriferous shrine at Dwight. On the other hand on account of this cure being a secret nostrum the regular medical profession has refused to recognize it, and on account of the questionable advertising methods resorted to by its high priests and followers many of the laity have condemned it. Thus on the one hand it has been declared miraculous and infallible, while on the other hand it has been treated either with silent contempt or with open condemnation. Being determined to find out something definite about the matter, early last spring I obtained a position as physician to a gold cure sanitarium at a distance from the city, and have carefully studied the cure up to within a few days ago. As I have had personal experience in treating about 300 cases, both in and out of the aforesaid sanitarium, I feel that the few remarks

Read before the Chicago Pathological Society.

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I can make may be of interest to you. And first I am prepared to give you the formulary of the gold treatment, which is almost if not quite the same in all of these institutes, as follows:

No. 1. Tonic. Known in the institutes as the "dope."

℞ Aurii et Sodii chlorid.....gr. xii.
Strychniae nitr.....gr. i.
Atropiae sulp.....gr. ¼.
Ammonii muriat.....gr. vi.
Aloin.....gr. i.
Hydrastin.....gr. ii.
Glycerini.....℥i.
Ext. fld. Cinchon. comp.....℥iii.
Ext. fld. Coca. Erythrox.....℥i.
Aquae dest.....℥i.

M. S. 1 drachm at 7, 9, 11, A. M., at 1, 3, 5, 7, 9, P. M.

No. 2. The injection known in the institutes as the "shot."

℞ Strychniae nit.....gr. 9 1-10.
Aquae destill. ad.....oz. 4.
Potass. permangan. q. s. to color.

Misce: Sig. Begin with gtt. 5., which equals gr. 1-40, and increase one drop each injection until the physiological effect is produced. Four hypodermic injections to be given daily, beginning at 8 A. M., then at 12 M., 4 P. M. and 8 P. M.

No. 3. Used with No. 2.

℞ Aurii et Sodii chlorid.....gr. 2½.
Aquae destill.....ad oz. 1.

Misce: Sig. gtt. 3, every four hours, in combination with the strychnine solution, for the first four days.

This last prescription is used only for the moral effect, which is produced in the following manner. Five drops of the strychnine solution are drawn into the syringe, and then three drops of the gold solution are drawn in and mixed. This produces a golden yellow color, to which attention is called, and the patient is farther assured as to the reality of the presence of the gold by the stain left on the skin after the hypodermic needle has been removed.

In regard to the disease itself, its importance as a factor of death and ruin, has been an important element in popularizing the cure. I feel safe in saying there is no enemy more potent for injury to the great superstructure of civilization than drunkenness. War, famine, pestilence, and even the "social evil" sink into comparative insignificance beside the demoniacal power of rum. Murder, arson, rape, acute and chronic inflammations, scleroses, ruin, and death all follow in its wake, therefore the great mass of the people are ready to hail as a savior any one who would propose a certain cure for this dreaded disease, more potent than Asiatic

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cholera, more far reaching than yellow fever, and the principal purveyor to the insane asylums. There is no necessity of entering into a discussion as regards the classification of inebriety. It is a disease, a pathological condition, and in the new psycho-neuropathology is placed in the group of disturbances of mental equilibrium known as "psychokinesia" or states of defective inhibition, and generically termed "dipsomania." We recognize drunkenness then as a disease, an extra physiological condition connected with that wondrous web of nerve cell and fiber, wherein take place those activities which underlie the conscious states we term mind.

Drunkenness then being a disease, we naturally look for a cure, being a disease of the nervous system we tend our energies in that direction, using specific therapeutic reagents; and as the maintenance of the physiological equilibrium of the nervous system depends on a healthy condition of the gross economy, we give general constitutional treatment, improving the patient's general tone, stimulating and strengthening his nervous mechanism, and surrounding him with such moral influences as will tend to reinforce his enfeebled volition. Of the drugs mentioned in the formula above quoted, I believe strychnine and atropine are almost specific. Strychnine is recognized as a most valuable neurotonic, and atropine seems to have a special aptitude in decreasing the appetite for alcohol. I have experimented on my own person with atropine alone, and after getting the system under the effects of this substance, with mouth, throat, and fauces dry, a drink of whisky becomes absolutely unpleasant, nay even painful. The functions of the terminal gustatory bulbs seem to be perverted, but even following this, the secondary or systemic effects of the liquor are no longer agreeable.

In one individual, a mild whisky-drinker, I saw a well-pronounced dislike for liquor induced by the use of atropine alone. I have to speak here of the fact that there are two classes of patients who come for treatment to these institutes. The first class comprises patients having a strong desire to be cured, who will follow implicitly and with the utmost confidence all directions given, believing firmly in the efficacy of the cure: the second class comprises a large number of patients who are brought, or forced to come for treatment against their own will and inclination. These individuals are skeptical and unbelievers. They will follow directions given, but ridicule the idea that any treatment can produce in them a dislike for liquor. After the appetite for liquor in these cases has been practically decreased, they will however force themselves to swallow the now "fiery and nauseating" fluid in

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order to show the fallacy of the cure. In these people a positive disgust is in almost, if not in every instance produced in the following manner; the patient is given a drink of whisky, then the so-called by-chloride of gold solution, really a solution of strychnine, is injected in his arm, but at the same time, and without his knowledge he receives one-tenth grain of apomorphine. It takes but a comparatively short time for the emetic to produce its effects, more or less violent emesis is produced, and the patient soon associating the in-taking of the whisky with the subsequent disagreeable and sickening vomiting, acquires a positive disgust for the liquor, and is not able to keep any on his stomach. Now he acknowledges the wonderful power of the hypothetical gold compound, and surrenders unconditionally. He is converted, and from an unbelieving scoffer, is changed into a disciple and supporter of the Prophet. These are the cases that are the most widely advertised and that have done the most good for the "Keeley Institute" folks.

In this connection I would call your attention to the very large doses of strychnine employed. I have myself unhesitatingly exhibited hypodermatically one-eighth grain four times a day, in addition to the one-forty-eighth grain given every two hours, by the mouth, until eight doses have been given in the day. This maximum dose is gradually but rapidly reached, beginning with one-fortieth grain hypodermatically, until the effects of the drug becomes manifest, when the dose is gradually decreased. In a number of cases I have seen the effects of the strychnine pushed to a remarkable degree, until the entire muscular system of the man would be in a continual state of tremor, until when on putting the heel rather suddenly and firmly on the ground, more or less opisthotinos would occur, and in certain cases I have seen this condition so well marked that antidotes would have to be exhibited, the drug habitually used being chloral hydrate. And here I would notice certain dangers and defects in the Keeley treatment. In these places the attending physicians are in ignorance of the composition of the medicinal solutions they are using, and all patients are treated exactly alike without regard to personal or individual idiosyncrasies. This is very wrong, each patient must be carefully studied as an individual, his psychical and physical idiosyncrasies and condition carefully noted, and both by day and by night he must be under the watchful care of the physician. A series of doses that would have but little or no effect on one patient would almost kill another, and then it will not do to depend entirely on the strychnine and atropine. A generous diet must be given, baths plain, turkish or

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electric, massage, rubbing with flesh-brush or loofa gloves, and the administration of maltine, liquor potass., arsenitis, combinations of iron, the hypophosphites, etc., should be taken into account. Not secondary in any way is the moral treatment, the rousing in him of a healthy active interest in himself and his surroundings, the awakening of his latent or dormant manliness, the strengthing of his moral sense, of his powers of volition; plenty of sleep, rest and quiet, a sufficient amount of muscular work to produce a healthy and pleasant fatigue at the close of the day, all go together in raising the sick man, and producing out of the wreck, God's noblest work, a healthy human being.

I am forced to believe that properly used this mode of treatment is valuable; that improperly and empirically conducted it is dangerous, and that it is not generally adapted for private practice. The patient should be in a sanitarium or retreat which ought to be situated in the country with pleasant surroundings; roomy, airy bedrooms, a good cuisine, and scientific physicians in attendance who will study each patient as an individual and carefully watch him during the whole course of treatment, which is usually about three weeks. There should be no secrecy or charlatanism about the treatment. Each physician should know exactly what he is administering, and in what amounts, what to expect, what contingencies to be prepared for and what to avoid. As regards the prognosis we must be guarded.

The medical man who will guarantee the cure of any pathological condition, no matter how simple, is a fraud and a quack. A man may suffer from pneumonitis and recover, but we cannot say that he may not have a second attack in the near or distant future, The patient should not be released from treatment when he passes from under the daily direct observation and care of his physician when he leaves the retreat. Tonics must be continued. I have found the elixir of iron, quinine and strychnine very useful, as also the syrup of the hypophosphites, and the bitter tonics. He should receive directions as to his daily life, be warned to avoid all dissipations and excesses, to be regular and temperate in all things, to obtain plenty of rest, and pay strict attention to his excretory apparatus, living up to the old motto, "Fear the Lord and keep the bowels open." In all cases the nisus generativus is for the time being below par. I believe it is best for these individuals not to use tobacco. There is danger of excess in the use of the weed, its effects are not good, and it often proves to be a material factor in causing a relapse.

I would strongly impress upon my colleagues in the medical

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profession the necessity of taking hold of this special plan of treatment of studying and investigating it, and if the report be favorable, of using it as a powerful lever of good, instead of leaving it as it is largely if not entirely in the hands of heedless empirics. If investigation should prove it without value, then it should be condemned and specific reasons given for such action. Poorly educated, incompetent, unscientific men occupy this field, and are recklessly and ignorantly using therapeutic agents of great strength, with disastrous effects in a large percentage of cases.

Let us call your attention for a moment to some details of this so-called "cure." In these "Keeley Institutes" in the room in which the hypodermic injections are given, three bottles stand on the desk, filled with different colored mixtures; one red, one white and one blue. In the "red" bottle is the nitrate of strychnine solution, the "white" bottle contains the atropine solution and in the "blue" bottle is the apomorphine mixture. In every case the "red" and "white" solutions are used, but where a patient is contumacious and refuses to surrender, the grand Inquisitor applies the "torture," and in addition to the "red" and "white" liquids he exhibits the "blue." According to the jargon of the "graduates" and "under-graduates" such a patient is described as having received the "barber-pole." Such a sickening effect is produced by this "barber-pole," or red, white and blue treatment, that after he has received it once, a patient will be seized with absolute terror when he sees the operator reaching for the "blue" bottle.

In conclusion I desire to state in a most emphatic manner that the Keeley cure is a shameless, bare-faced, money-making scheme, as practiced, and the men engaged in it are totally devoid of ethical honor. Powerful drugs are administered by incompetent men who are absolutely ignorant of what materials are being used, or in what amounts these materials are being given. You are familiar with the long list of fatalities that have been reported following the treatment.

I desire here to reiterate my positive opinion, however, that properly and scientifically conducted, good results can be obtained.

The two following cases are selected for report, as being typical:

Case I. Mr. Blank, aged thirty-nine years, occupation clothing clerk, weight 225 pounds. In splendid physical condition. This case is one that might be termed a periodical drunkard. He was brought to me for treatment against his will, by two policemen and three hack-drivers. He was very much opposed to the treatment on account of the fact that he had taken a course of treatment at

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the Keeley Institution at Dwight without any benefit whatever, his appetite for liquor remaining unchanged. He declaimed loudly against all liquor cures, stating that he had paid a very large sum of money to the Dwight Institute without receiving anything in return, and that the whole affair was a fraud on the face of it. I may here say that after a patient has received a course of treatment in a Retreat and has a relapse, subsequent treatment is always more difficult. To return to my patient, he was in a drunken hilarious condition, but became exceedingly angry when he discovered where he was, and it took five men to hold him and prevent him from injuring himself and others. I gave him a dose of grs. 40 of sulphonal, and after the lapse of fifteen minutes I exhibited gr. one-half of morphia sulph. hypodermatically. This not producing the desired effect, in about thirty minutes later I gave him per orem, grs. 40 of potassium bromide with grs. 30 of chloral hydrate. His excessively excitable condition amounting almost to a maniacal attack, subsided, and he slept soundly through the entire night, watched carefully by an attendant. The course of treatment was as follows: He was allowed to drink all the whisky he desired and a quart of liquor was sent to his room. Beginning with the tonic at 7 A. M., and the hypodermic injection at 8 A. M., he received one injection every four hours and one dose of the tonic mixture every two hours, until 9 P. M. The physiological effect of the treatment was not reached until the end of the fourth day, when he began to show unmistakable signs of strychninism.

This was one of the cases that fought strongly against the treatment and forced himself to drink liquor, in spite of the fact, afterward confessed by him, that he had begun to appreciate a certain amount of distaste for it. I therefore began to give him without his knowledge, grain one-tenth of apomorphine with each injection, which had the desired effect. I gradually decreased the amount of strychnine given with each injection, but kept up the use of the tonic, and after the eighth day he gave in, and said he could not drink whisky no matter how much he might try. For three weeks I kept him on small doses of the injection and tonic, and discharged him recovered. He is now under my observation and declares he has no desire for liquor whatever, although it is now over four months since he was discharged from the institute. I will continue to keep him in view, and will watch his course with interest.

The fault in connection with the treatment of this gentleman at Dwight was that he was treated the same as every other one; he required a large amount of strychnine to bring him under

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its effects, small doses not having any influence. This condition I desire to accentuate, as in the next case I here report, if the same doses of strychnine had been given, a serious result would certainly have followed.

CASE II. Mr. Blank, aged forty-four years, weight 125 pounds, occupation, hotel keeper. His is of a very nervous disposition and had been drunk for over twenty years. He was brought for treatment by a friend of his, and was a very willing patient, stating that he longed to be cured from his bad habit. I started him on the usual treatment, not giving him as large doses as in case I. In three days he came fully under the influence of the drugs, and of his own free will stopped drinking. He was discharged at about the same time as case I, and has not in any way relapsed.

He is now and has been since his discharge under my observation, and I will continue to watch him. During the course of his treatment he suffered from visual and auditory hallucinations, but these soon disappeared, and have not returned. I believe these illusions were due to atropine, as on reducing this agent, they began to pass off.

Of the three hundred cases that have been under my care since last April, I know of but two relapses, and I have followed up nearly every case, both by correspondence and having some report to me at various intervals of time. Of the two relapsing cases one was a barber and a persistent gambler. For quite a long time he remained straight, but was rendered very uncomfortable by the fact that his friends were continually twitting him on his being a "bichloride of gold" graduate. This annoyed him so that he began drinking.

The second relapsing case was the son of a saloonkeeper, and about a month after his leaving the institute, his father put him attending bar in his own saloon, causing the young fellow's fall.

I am now treating here in the city by the treatment I have outlined, a number of these cases, and will be glad at some future time to report to you farther in the matter.

57 WASHINGTON STREET.

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LARYNGEAL PARALYSIS.

By JOHN A. ROBISON, A. M., M. D.

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For the sake of brevity I have chosen laryngeal paralysis, as the title for this article, intending to include all forms of laryngeal paralysis whether partial or complete, and whether due to defective innervation or other causes.

In order, therefore, that we may better classify the various forms of impairment of voice production it is advisable for us to briefly review the mechanism involved in producing vocal sounds.

There are two elements in the generation of vocal sounds, first, the motor element; second, the vibratory element. The motor element resides in the air chamber which consists of the thoracic walls, the diaphragm, the lungs, bronchial tubes and trachea. Here originates the expiratory or inspiratory current of air that puts into operation the vibratory element in vocal sounds. The vibratory element is found in the larynx, and is due to a complicated action of its vocal cords, extrinsic and intrinsic muscles. There are other elements that are factors in the production of vocal sounds, as heard in song and speech, but as they are produced in other organs than those already named, we do not need for our present purpose, to name them.

It has occurred to the writer that one of the greatest difficulties in the differential diagnosis of the various forms of laryngeal paralysis is due to the fact that we do not always carefully examine as to whether the paralysis is due to disease in the motor organs or in the vibratory organs, or due to impaired innervation. The etiological factor in the production of laryngeal paralysis may be due to a neurosis, or due to tissue changes within the thorax or larynx. By a neurosis, we intend to convey the idea any functional or organic disorder, whether located in the cerebrum, cerebellum, the roots, trunks, or terminal filaments of the nerves, that interferes with the conveyance of sensory or motor impulses to the laryngeal muscles. Consequently I would divide the paralyses into two classes according to their etiology.

1. Neurotic. 2. Mechanical. To the first class belong all those cases due to the following causes: progressive bulbar paralysis, diphtheritic paralysis, paralysis of the vagi or its superior, inferior or recurrent laryngeal branches, motor paralysis due to constitutional dyscrasia, general or local anemia, or hysteria, or

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CAUSATION.	MUSCLES INVOLVED.	RESULTS.	TREATMENT.
Progressive bulbar paralysis; diphtheria; cerebral disease.	Aryteno-epiglottic; sometimes thyro-ary-epiglottic.	Opens rima glottidis and produces difficult deglutition; voice husky.	Strychnia, Massage of larynx; electricity.
Paralysis of superior laryngeal nerve in injuries to neck, or ligation of carotid; disease of vagi; overstraining voice; catarrhal sore throat.	Crico-thyroid. (Tensors.)	Low-pitched tones; impossible to produce high notes.	Rest; massage; electricity.
Cause obscure.[1]	Bilateral paralysis of crico-arytenoids. (Dilators of glottis and adductors of vocal chords.)	Dyspnea with inspiratory stridor, and occasionally spasm of glottis.	Tracheotomy; electricity.
Compression of one inferior laryngeal nerve, or branch of pneumogastric; hemiplegia.	Unilateral paralysis of crico-arytenoid. (Adductor of vocal chord.)	Moderate dyspnea. Voice hoarse and muffled, or shrill and dissonant.	Treat special cause; avoid overexertion; tracheotomy.
Overstraining voice; changing voice; using voice during attack of acute catarrh.	Thyro-arytenoid. (Relaxors.)	Voice raised in pitch. Sometimes dysphonia or aphonia.	Rest; vocal culture; electricity.
Hysteria; emotional excitement; reflex.	Bilateral. Crico-arytenoidei laterals. (Lateral adductors.)	Dysphonia, or intermittent aphonia.[2]	Tonics; excitation of glottis; electricity.
External injury to recurrent laryngeal, or atrophy or destruction by tumor or malignant disease.	Unilateral. Crico-arytenoideus.	Dysphonia.	Removal of cause if possible: electricity if no cerebral disease.
Acute laryngitis; hysteria.	Arytenoid. Central adductor	Voice fatigue; dysphonia.	Rest; electricity.

[1] A case occurred in my practice in 1884, when a lady, aged about fifty years, subject to valvular heart disease, had this form of laryngeal paralysis, and died from spasm of the glottis before surgical aid could be obtained.

[2] Dr. H. B. Stehman referred a young lady to me for examination who had this form of laryngeal paralysis. By pressure on the larynx she could produce vocal sounds. She had disease of the uterus and ovaries.

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reflex paralysis as result of grave disease in distant organs. For example, I have a patient who has an abdominal aortic aneurism, with paralysis of thyro-arytenoid muscles and as a consequence he has a high pitched voice which formerly was low pitched. We may have reflex paralysis as a result of nasal, pharygneal, laryngeal or bronchial catarrh, the eruptive diseases, the irritation of morbid growths in the nares, pharynx or larynx, all constitutional diseases, systemic poisoning, pregnancy, overwork, emotional excitement, and innumerable other conditions.

The paralyses due to mechanical interference with the action of the motor or vibrating voice organs are the result of the following causes:

Within the thorax: aortic aneurism, mediastinal tumors, morbid growths, excessive pleuritic effusion, pericardial effusion, carcarcinoma of esophagus, disease of right apex of the lung. Within or adjacent to larynx: muscular infiltration, tumefaction of adjacent tissues, injuries in the neck, compression, cancerous, tubercular or syphilitic disease.

A schematic representation of the causes, muscles involved, results and treatment of laryngeal paralyses is shown on page 13.

If we make an analysis of the causes of laryngeal paralysis, and the effects of these causes upon the larynx itself we will find that nature has provided the larynx with an unusual immunity against structural change. Only a small percentage of the cases where there is dysphonia or aphonia are due to intrinsic laryngeal tissue change. Hence it is a mistake to suppose that in nearly all the cases of voice impairment the laryngologist can discover structural lesions by a laryngoscopic examination. And it is a far graver error to presume that local treatment of the larynx in cases of voice impairment by laryngeal paresis or paralysis will restore the normal voice tones. The practitioner's skill in restoring a speaker's or singer's voice will often depend more upon his acumen in making a differential diagnosis as to the particular extrinsic or intrinsic laryngeal muscles that are impaired, or the exact cause of deficient innervation, or the primary cause, local or remote, of the paralysis, than upon his dexterity in the use of the laryngoscope, or his knowledge of throat therapeusis. If there is structural change in the larynx, the prognosis will be favorable or grave according to the pathological condition of these changes. If the remote causes of the voice impaired are due to disturbances in function of nutrition, circulation, digestion or respiration, or the result of overwork or exposure to cold, or damp, the prognosis is more favorable.

In closing, allow me to protest against the too prevalent method

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of treating laryngeal paralysis by local treatment, such as sprays, inhalations, insufflations of powders, and so forth, without regard to the etiology of the disease. The principal factors in the treatment of the majority of laryngeal paralyses are rest, massage, and electricity properly applied. Attention to diet, clothing, exercise, are imperative. And it goes without saying that we must never try to isolate the larynx from the rest of the body, but must endeavor to correct disturbances of any of the remote organs.

297 ASHLAND BOULEVARD.

REMARKS ON SIMPLE TYPHOID.

ONE HUNDRED AND SIX CASES AND ELEVEN DEATHS, IN THE SERVICE OF PROFESSOR FRANK BILLINGS AT THE COOK COUNTY HOSPITAL.

BY DR. A. BELCHAM KEYES.

LATE RESIDENT STAFF.

In the three months ending December 31st, 1891, there were admitted seventy-five male and thirty-one female typhoid patients, of these ninety-two were single and fourteen married.

The number under twenty years of age were 9; twenty to thirty years, 74; thirty to forty years, 15; forty years and over, 6; age not given, 2.

Many patients had resided in Chicago less than one year and nearly all were drawn from the crowded districts inhabited by the laboring classes; while there were four instances of more than one member of the family being attacked, viz.: a husband and wife; two boarders not related; a brother and two sisters, and three sisters. June and July for two years past have been the months of greatest prevalence, as well as mortality. The nationalities most affected were Swedes, Irish and Germans. If patients can be believed, one attack does not give immunity against another in every case.

Having outlined and examined by all known clinical methods the kidneys, spleen, heart, lungs and liver, and considered the pathological relation of the particular lesion to its influence on the disease, the apparent severity of the attack, the general habits and occupation, we now compare the report of the chemical and microscopical examination of excreta; the urine for amount of urea per pound of body weight, for casts, albumen and sugar, etc.; the sputum, and feces for physiological, histological and patho-

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logical contents. Armed with these facts, we certainly should be able to come nearer a perfect diagnosis and prognosis, and be better prepared to use means to avoid complications, and to more accurately treat those already present.

The prophylaxis of typhoid is one of sterilization of the ingesta; boiling the milk and water is within the reach of all.

The instructions in typhoid were as follows: The patient to be kept strictly in the horizontal position in bed; liquid diet, ℥viii every two hours; record pulse, temperature and respiration every four hours; sponge bath every morning for cleanliness; back to be rubbed with a mixture of alcohol and alum; mouth swabbed with peroxide of hydrogen, or boric acid in glycerine; tender spots, bedsores and furuncles dressed and reported; the character of passages and number noted. If signs of blood or undigested material appear, save for inspection. Enema of glycerine ℥ii, water ℥i, every second day p. r. n. If temperature rises above 103° sponge-bath, if 105° report at once to interne. For epistaxis, elevate head on pillows, ice to neck and plug anterior nares; intestinal hemorrhage, elevate foot of bed, ice-water coil to abdomen, notify interne; sudden changes in pulse rate or character, sudden rises or falls of temperature, with or without pain or vomiting to be reported at once; medicines to be given as prescribed; excretions to be disinfected.

The strict enforcement of the horizontal position should be insisted on when we consider the chances of precipitation of intestinal hemorrhage, rupture into the peritoneal cavity, or the so-called heart failure that may occur from the least exertion. Keeping the foot of the bed raised was found of much service in weak heart action.

The diet was principally milk every two hours. Predigested by the Fairchild tubes it gave satisfaction when the milk was fresh and the requisite amount of sterilized water added. The use of tainted milk probably accounted for much of the summer mortality. Beef tea and mutton and chicken broths were often employed to the exclusion of everything but water for as long as three weeks when the milk was not good.

Sterilized water was used freely in all cases. When the patient refused liquid by the mouth, rectal alimentation was immediately resorted to by a gravitative enema, consisting of peptonized milk 1 pint, water sterlized ¼ pint, cod liver oil 1 ounce, common salt 30 grains. This was given from a fountain syringe hung about two feet above the foot of the bed, this being raised about one foot from the floor. The slower the contents pass into

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the bowel the better. The irritation of the colon or rectum so often given as a contraindication it has never been my misfortune to witness and the untoward results must be attributed to the introduction of long tubes or to too rapid administration. The temperature of the enemata was 99-100°. In many cases it was given as often as every four hours, over a period of two to three weeks.

Coffee and alcoholic stimulants were used sparingly in the later stages and in small quantities both seemed to do good.

Sponging was found sufficient to reduce the temperature in all cases where it was possible. Phenacetine, antifebrine, and antipyrine are considered a menace to permanent improvement and only a means toward a temporary delusive reduction of temperature at the expense of cardiac force where the temperature yielded but slightly to sponging. This was repeated frequently, or the patient was wrapped in a wet sheet. This latter method is not without its dangers, and should be watched as carefully as the bath.

The cold bath advocated in Germany and at Johns Hopkins in this country, was impracticable for want of the proper appliances. The use of alcohol in the water to about twenty per cent greatly assisted in the reduction of temperature, being fat removing, cleansing, and antiseptic. Soft soap occasionally also, is especially good in this direction.

In no disease does Fathergill's injunction to compare the relation of the pulse, temperature, and respiration hold good more than in typhoid. Sudden changes in temperature are significant of complications, reductions pointing to possible hemorrhage, sudden rises to the formation of pus, a concomitant inflammation, the too early ingestion of food, or those unexplained cases of malario-typhoid.

On visiting days the temperature invariably rose 1°, and sometimes 2° Fahrenheit. In one case of tympanitis the respirations rose to 78 per minute, the liver dullness entirely disappeared with very tense abdominal walls and anxious expression; the pulse remained under 105° per minute, temperature 102°, The lungs were apparently free from pneumonia. Only the absence of any wide separation between the relative rate of pulse to the temperature stood between a diagnosis of perforation and peritonitis, and perhaps a laparotomy. Appropriate treatment with a rectal tube proved the truth of the conclusion and the patient made a good recovery.

Careful attention to the back is essential to avert the occurrence of bed sores and furuncles, the latter being anto-inoculable,

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often occurring in crops which sometimes invade the whole dorsal surface. These were treated in true surgical fashion. The patient should be turned daily from two to three times from one side to the other to prevent the occurrence of dependent pulmonary congestion.

The mouth cleansing with an antiseptic once daily, reaching as far back as possible with the swab or spray, considerably lessened the otitis media, while no case of suppurative parotiditis occurred in either service.

Diarrhea so generally considered harmful, when allowed to run itself out, proved self-limited and some, stimulated with a little calomel did far better than where astringent remedies were used.

The occurrence of tuberculosis in young convalescent typhoids, probably dating its commencement from the time when the lungs were of low resisting power, should appeal forcibly for strict isolation from other doubtful cases.

Calomel as an abortifacient would appear of doubtful value if we place side by side the aborted cases that could not be proved to be typhoid and those that ran a typical course in spite of the calomel. Patience is preëminently valuable in typhoid treatment, combined with medication to meet the symptomatic indications and careful maintenance of nutrition, secretion and excretion.

Strychnine was used throughout the disease with markedly good effect, lessening the restlessness, jactitation and insomnia, and thereby conserving the patient's strength. The ammonia compounds were also used to some degree and quinine, undervalued on account of its common everyday use, gave evidence of permanent antipyretic qualities in six grain doses every four hours, and was the only drug used to this end. Salol, nitrate of silver and carbolic acid were used and apparently gave good results in limiting the tympanitis, but it is impossible to believe that any antiseptic effect was produced on the lesions in Peyer's patches. Turpentine maintained its reputation, but was used little except in intestinal hemorrhages; where combined with opium it did good service; also in an enema in tympanitis, one teaspoonful to the pint, it was especially efficient. Tincture of iron and glycerine in large doses were given throughout, in some cases markedly shortening the dry stage. The alteratives resorted to were tincture of iodine and dilute nitric acid. Opium, except as mentioned above, was not given for fear of checking excretions. Sleeplessness was combated by the least depressing bromides, and pain by hot

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fomentations. The remainder of the treatment resolved itself into first, the prevention of, and second, the treatment of complications.

The evening temperature being found normal for three days, soft egg in addition to the liquid diet was allowed; sixth day, milk toast well cooked was added; seventh day, light diet, consisting of poached eggs, rice, tapioca; ninth day, ward diet except new bread and fruit or pickles, these last being forbidden for six months. Patients were not allowed to gorge themselves, at the outset the food being measured out to them till the ninth day. Any rise of temperature above normal was promptly met by a return to liquid diet.

The excretions should be carefully disinfected, half a pint of ten per cent carbolic acid, or $\frac{1}{1000}$ bichloride of mercury should be placed in the pan before using, and boiling water poured on the discharges immediately after. All soiled clothes and linen should be boiled before washing, instead of after.

The complications and manifestations observed were as follows: Face, erysipelas 3; nose, epistaxis 5; mouth, abscess 2, tonsilitis 2, pharyngitis 1, odema of larynx 1, otitis media 3, parotiditis 0; lungs, bronchitis 57, hypostatic congestion 7, lobular pneumonia 3, lobar pneumonia 2, pleurisy 1, tuberculosis 4; intestines, diarrhea 106, tympanitis 106, hemorrhage 3, perforation 2, suppuration of mesenteric glands 1; joints, arthritis knee 1; skin, bedsores 5, nightsweats 5, furunculosis 2, puerpera hemorrhagica 7; nervous, delirium tremens 2, subsaltus tendinum 10, headache 106, cerebral hemorrhage 0, convulsions 1; paralysis of sphincters 7; spleen, infarct 1; vessels, arterial thrombus and gangrene 1, endophlebitis 1; kidneys, albuminuria 37, acute nephritis 1; heart, thrombus of left ventricle 2, endocarditis 5, cardiac dilatation and failure 2, pyemic abscesses 5; muscle pains in convalescence, probably from waxy degeneration 7; relapses 5.

In conclusion, I wish to thank Prof. Frank Billings for the privilege of reporting, and Dr. A. A. Knapp, the present House Surgeon, who so ably assisted me in carrying out the directions herein enumerated, and also in the composition of this report.

30 WALTON PLACE.

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REPORT OF A CASE OF CEREBRAL ABSCESS.

By ROB'T. L. NOURSE, M. D.

The following case came into my hands November 3d, 1892.

James D., married, aged forty-three, American, occupation, blacksmith. General health had been good. He has been rather a heavy drinker. Gives no history whatever of abscess of middle ear or injury to head. His family report that he arrived in the city October 31st, three days before I saw him, and that his actions and manners were very strange and unnatural. He had evident incoördination, would run against the stove or other furniture in attempting to walk. His voice was thick and unnatural, would talk of incidents of his boyhood and sing childish songs. The facial muscles of the left side were noticed to jerk and twitch, saliva drooled from the left angle of the mouth, and, when drinking, fluids would escape from the left corner of the mouth. He was unable to hold a fork in his left hand while eating. When I first saw him he presented the following symptoms:

Patient in a deep, stupor-like sleep from which he can be temporarily aroused when he will answer questions intelligently, recognize friends, tell how he feels, and at once relapse into a condition of hebetude. His voice is thick and almost inarticulate. He complains of severe headache, temperature and pulse both subnormal. The former 97.4° and the latter 60 per minute. Pupils unequal, both react, the left slightly irregular. Motion of left arm almost abolished, that of left leg slightly diminished. Sensation unimpaired. When made to laugh, the left angle of mouth remains motionless. Flexor muscles of forearm and hand contracted. Abdomen retracted, from contracture of abdominal muscles. The reflexes in the left leg are absent.

November 4th. Patient slightly more comatose, takes neither food nor drink; temperature 97.6°, pulse 60, respiration 22, and modified Cheyne-Stokes. Bowels moved voluntarily, urine involuntarily. Evening, temperature 98°, pulse 55, respiration typical Cheyne-Stokes. Diagnosis, cerebral abscess of the right hemisphere, probably located in the arm and leg center. Operation advised.

November 5th. Patient passed very restless night. General condition unchanged. Temperature and pulse continue subnormal. Dark, reddish-brown, lenticular, pigmented spots have appeared on both legs below the knee, in size varying from that of a split pea to that of a finger-nail. They do not disappear on pres-

Read before the Chicago Pathological Society, Dec. 12th, 1892.

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sure. On examination of his head this morning an area of tenderness two inches in diameter was discovered, situated in the temporal region of the right side on a level with the top of the ear and one inch in front of the same. Pressure on this area rouses the patient from his stupor and causes the facial muscles of the right side of the face to draw up as if in pain. If pressure is continued, he will attempt to brush away the offending object with his right hand. On being questioned says it hurts him there. I am unable to get urine for analysis.

November 6th. Paralysis of the left side slightly more pronounced, contracture of the flexor muscles gone. Temperature 97.5°; pulse, 48; respiration, Cheyne-Stokes. Temperature right axilla, 97.5°; left axilla, 98°. Temperature right temple, 96°; left temple, 97°. This I would say is a normal relation, the temperature of the left side in health as a rule is one-half to one degree higher than the right, though both in this instance are subnormal. Drs. Weaver and Van Hook being called in consultation coincided in the diagnosis and advisability of an operation.

Operation at 3 P. M., Dr. Van Hook administering the anesthetic, chloroform being used. The scalp after having been shaved and disinfected was examined for scars or other evidence of traumatism but none found. A crucial incision was now made through the scalp and two triangular flaps reflected, and the trephine point placed six or seven centimeters above, and one and one-half centimeters in front of the external auditory meatus. This corresponds pretty well to the middle portion of the fissure of Rolando, the area chiefly concerned in the motion of the arms. The button being removed the dura bulged forward into the opening made by the trephine. This was slit open and a grooved director introduced into the brain, the point being directed slightly backward and upward to the depth of two inches, when about a drachm of thick, fetid pus flowed out. The opening was now enlarged by inserting a pair of forceps and withdrawing them open. After evacuating about six drachms of exceedingly fetid pus, a drainage tube was inserted and the scalp flaps replaced. Scarcely had this been done when the patient, who was recovering from the anesthesia, closed the fingers of the left hand and flexed the forearm upon the arm, a thing he had not been able to do since my second visit. The wound being dressed aseptically the patient was put to bed. He reacted well from the anesthesia and operation. Respiration became at once more regular and the patient took nourishment well.

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November 7th. Morning temperature 98°, pulse 90, respiration 20, and quite regular. A movement of the bowels secured by enema. Evening temperature, 97.3°, pulse 48, respiration 20. Patient seems quite bright, is wide awake, and his memory appears good. He jests with his nurse. Urine passed involuntarily; later a quantity secured by catheterization and by analysis shows no albumen, no sugar, slight increase of chlorides, and a total increase of solids. Patella reflex of the right side absent. Paralysis of the left arm continues. Motion in the leg present. Sensation present in both arm and leg. Patient complains of pain all along the spine, and is very restless. Ordered bromides and diurectics.

November 8th. Patient slept well, talks more intelligently, and drinks much better. Morning temperature and pulse same as yesterday. Evening temperature 98°, pulse 82, respiration 24 and regular. Patient appears much brighter. Redressed the wound; pus still oozing; irrigated with peroxide of hydrogen until it came away clear.

November 9th. Temperature 98.2°, pulse 70, respiration 72, patient expresses himself as feeling well, takes nourishment with relish. Evening temperature 98.4°, pulse 76, and respiration 24—all normal.

November 10th. Patient very restless, passed urine involuntarily, temperature 98, pulse 50, respiration 22. At four o'clock had an attack of syncope, when his temperature ran down to 97°, pulse to 43, and respiration very irregular. Redressed the wound, no oozing, left the tube out.

November 11th. Patient had a restless night. Temperature 99°, pulse 60, respiration Cheyne-Stokes. Evening condition unchanged.

November 12th. Temperature 98°, pulse 52, respiration 20 and more regular. Skin moist; patient more stupid than yesterday. Reinserted drainage tube, examination of urine shows it to be slightly turbid. Uric acid increased. Slight trace of sugar. 4 P. M. patient had another attack of syncope, ordered digitalis and strychnine.

Nov. 13. Patient seems weaker this morning. Left pupil very irregular. Coma more profound. Temperature 97.4°, pulse 92, respiration 28 and Cheyne-Stokes. At times there is absolute cessation of respiration for forty seconds.

Nov. 14th. General appearance slightly better. Eyes open, urine and bowels moved involuntarily, symptoms much worse toward night, respiration very bad.

Nov. 15th. Patient died at 7 A. M., ten days after operation.

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Autopsy three hours after death. Trephine opening found to be two-and-a-half inches above and one-half inch anterior to the external auditory meatus, and situated just in front of the middle meningeal artery. The skull was found to be of average thickness, no scar or other marks of traumatism was found. Dura mater normal in appearance and not adherent. Pia mater filled dark incoagulable blood. Cerebral surface appears normal but around the inferior extremity of the fissure of Rolando an area of softening is discovered. Upon tearing away a portion of this degenerate cortical substance we came upon an encapsulated abscess, the sack wall of which is dark and gangrenous and tears readily. It contains about three and one-half ounces of thick, fetid pus. It was located in the lower portion of the ascending frontal convolution just anterior to the lower extremity of the fissure of Rolando and occupying to a considerable extent the situation of the island of Reil and its surrounding sulci. The abscess sac was free throughout its circumference except at its posterior and upper extremity where it was firmly attached by a small pedicle to the white matter beneath the cortical substance at about the middle of the ascending frontal convolution, which was evidently the point of primary infection.

The degenerated cortical substance overlaying the abscess wall was soft and of a yellowish tint, and from one-eighth to one-half inch in thickness. The sac wall contained a perforation near its upper margin made by the grooved director. I have inserted a piece of catheter in the same in the specimen which I have passed around for your inspection. The sac was completely distended, showing it had reformed what was lost by evacuation. The specimen I show you is one-third smaller than before it was placed in the preserving fluid.

SUMMARY.—Prior to the operation no history of middle ear abscess, or injury to the head, could be obtained. Since then, however, I have learned that in August last he did receive a blow upon the back of the head from a projecting piece of iron while he was walking backward in his blacksmith shop. The blow was a light one and did not disable him for work though he complained of headache and dizziness for several days. I also learned that he applied for medical treatment in Savanna, Ill., two days prior to coming to Chicago. His physician writes me as follows:

SAVANNA, ILL., November 13th, 1892.

DEAR DOCTOR:—Yours of the 9th to hand in regard to ———. He came to my office October 30th, 1892. He came with a man who found him wandering about the C. M. & St. P. R. R. yards. The patient was not able to talk. He

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had no paralysis; he used both hands all right; had constant motion of his head; twitchings of facial muscles of left side; had a constant snapping together of teeth; had a block of wood between teeth. On examination I found pupils normal, pulse 75, full and regular. Temperature 99°. Was not able to tell me at the time how long he had been in that condition. Gave him a potass. bromide mixture, and he rested in my office for three hours. He then told me that he had a spell like this once in the morning, but it did not last so long. He said he felt quite well before he was taken that morning. After talking with him for an hour we walked up to the hotel where he went to bed. Saw him the next morning. Said he had slept well. Was up and had his breakfast. Told me he was going to Chicago as his family lived in the city. Yours truly,

J. G. Love.

One unusual symptom noticed in this case was the appearance of the irregularly shaped, pigmented spots on both legs which remained permanent and did not disappear on pressure.

80 Park Avenue.

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THE

CHICAGO MEDICAL RECORDER.

Journal of the Chicago Medical Society.

Drs. JOHN A. ROBISON, WILLIAM T. THACKERAY, EDMUND J. DOERING
Committee on Publication.

Dr. ARCHIBALD CHURCH, Editor for the Committee.

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Society Proceedings.

THE CHICAGO MEDICAL SOCIETY.

Regular Meeting January 16th, 1893.

President HOTZ in the chair.

The minutes of the preceding meeting were read, amended, and approved.

The Committee on Membership was granted further time for the consideration of the application in their hands.

EXHIBITION OF APPARATUS FOR STERILIZING CATGUT.

Dr. WELLER VAN HOOK: If any excuse is necessary for presenting the simple apparatus I have here for sterilizing catgut, it is that during the last few years catgut has fallen into disrepute. You know the old saying, give a dog a bad name, etc., and catgut having once received a bad name has fallen into disuse. Some surgeons are still using it, but always with fear and trembling if it is prepared by others, and with difficulty if it has to be prepared by themselves. The utility of catgut, a readily absorbable animal material which can be used for ligatures and sutures, cannot be doubted. It is exceedingly valuable not only for application in subcutaneous sutures that do not have to be removed, but also in mucous cavities where it is not desirable to take out the sutures,

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such as the mouth and the vagina, where the catgut, if properly adjusted as to size, can be left to come out of itself.

The beginning, I believe, of the disrepute of catgut was in 1887, when Volkmann reported his case of anthrax due to catgut used in suturing a wound, and since that time anthrax has been such a bugbear that it has been the constant effort to sterilize the material in such a way that anthrax will be impossible after the use of this animal membrane. The methods prevailing up to a short time ago have been by chemical sterilization, but about two years ago Dr. Fowler, of Brooklyn, originated the method of sterilization by boiling in alcohol. That method has not been popularized as much as it should be, and it was for that reason I wished to present this little apparatus so that you might see how easily alcohol can be used for this purpose. Elaborate experiments were conducted by Dr. Fowler, and these experiments proved conclusively that boiling in alcohol for an hour would sterilize catgut or silk, and would destroy even the most resistant of all spores, those of anthrax. In the New York hospitals, if we may credit Dr. Dowd[1] they have been using this method of sterilization of catgut for more than a year with the utmost success.

Boiling it in alcohol for one hour would seem to be a simple process, and to require only a simple apparatus, but a complicated apparatus has been devised by Dr. Dowd by means of which when the alcohol is boiled at the usual temperature of 79° C., its undue evaporation long before the process of sterilization is complete is prevented. For if the boiling is conducted in an open vessel, more alcohol has to be repeatedly added, and the temperature is therefore lowered several times.

Dr. Dowd's apparatus, described in the *Medical Record*, as cited, consists of a jar which has in the top an opening through which a tube passes that connects with a condensor. This condensor receives the alcohol as it evaporates, reconverts it into a liquid and allows the alcohol to drop back into the jar and go through the cycle of changes again. The only improvement I have made is to simplify the process by dispensing with the expensive and difficultly manageable condensing apparatus. I took a Mason's pint preserve jar, broke the porcelain lining of the top, and with a kitchen can opener, made a round hole in the top sufficiently large to admit the passage of a rubber stopper, through which was introduced a glass tube about three feet long and one-half inch wide. When the alcohol is put in the jar the catgut can be placed in the alcohol in small bottles, and the alcohol boiled by setting the

[1]New York *Medical Record* December 3d, 1892.

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jar in a pan of heated water. As fast as the alcohol vapors arise they are condensed in the long tube only to drop back into the jar again. If necessary in hot weather the tube can be kept cool by surrounding it with pieces of cracked ice wrapped in a towel. There is only a slight loss of alcohol in this apparatus, and by adding one-third more than necessary to cover the bottles in the beginning, there is no difficulty in keeping enough alcohol all the time to make sterilization complete without adding fresh alcohol. The catgut after it has once been sterilized in this way is all that could be desired of a rapidly absorbable animal membrane. At first it has the hardened dry appearance of silkworm gut, and in this condition it can be sharpened with the scissors and the needles easily threaded; then if it is laid for a moment in water it will absorb a small quantity, will swell slightly, will readily slip through the fingers and can be handled with the greatest ease. It presents all the appearances of ordinary catgut, except that the oil has been removed.

This little apparatus is so easily made that any one can prepare it, and it can be made in any size, even large enough to accomodate large hospitals. Slik can be sterilized in the same way and at the same time. It is best in sterilizing both, to use small quantities in small jars which can be placed in the large one. Screw cap jars are preferable because the caps can be left partly unscrewed during sterilization and tightened after removal.

Dr. WESCOTT: I would like to have Dr. Van Hook tell us if the process of sterilizating he has described makes catgut brittle or harder, or affects in any way its relative absorption.

Dr. VAN HOOK: Experiment has shown that catgut sterilized in this way is stronger than when prepared by any of the chemical methods now in vogue. It is smoother, more easily handled, does not soil the fingers, and is in every way more desirable. It approaches silkworm gut in desirability as far as handling is concerned. It is not rendered brittle at the temperature of boiling alcohol.

Dr. J. F. OAKS: The question of Dr. Wescott was not entirely answered, that is in relation to the time of the absorption of the catgut prepared in the manner Dr. Van Hook has just mentioned.

Dr. VAN HOOK: In regard to the time of absorption I do not know that any experiments have been made, but I do not see why it may not be as readily absorbed as that prepared by the other method. When impregnated with corrosive sublimate it seems to

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me catgut is a very irritating substance, and I should think would require a longer time to absorb than when prepared by this method.

Dr. J. H. ETHERIDGE read a paper entitled "A Year's Work in Abdominal Surgery", including one hundred and twenty-one cases. See page 95.

Dr. J. C. HOAG: I think Dr. Etheridge has made his paper altogether too short. Although I am not exactly in this line of work just now, I have seen a good deal of it, and would be glad if in his closing remarks he would tell us about the final treatment of the patients, the kind of anesthetics given and the manner of giving them, and the material used for ligatures and sutures.

Dr F. B. ROBINSON: I was quite interested in this paper; one hundred and twenty-one sections with fifteen deaths; twelve per cent of deaths, is a good record. In looking over the record of abdominal sections one will find, where amateurs operate, at least twenty per cent of deaths. The best seen in the world average eight per cent, of course some individual surgeons get down to two per cent, or even less, but with one hundred and twenty-one sections, twelve per cent of deaths I consider very good. I expected the doctor to say something about the kidneys, something about the bronchitis, or tying the ureters. He has been fortunate if the ureters were not involved or bronchitis or nephritis did not follow the anesthetic in some of these cases. He did not tell us anything about the neuroses that come up after these operations.

Relative to the method of preparing the patient by keeping her in bed and giving her douches, I have employed that method a good while, and have seen others do it. It is remarkable how, in a week or ten days, by the use of hot water douches, there will be absorbed an immense edematous mass in the pelvis, and then when the abdomen is opened the tubes and ovaries can be easily enucleated. I have never thought that four to six hot douches a day were necessary. I have generally found that three douches a day of eight or ten quarts of hot water was about all the patient could bear, and that will absorb a wonderful amount of exudate in a week. Another thing the doctor is to be congratulated upon is that there was only one stitch abscess in one hundred and twenty-one cases. This is the most remarkable thing I have ever known. I have seen hundreds of cases of laparotomy, but never saw a large number together without stitch abscesses, and I have tried to do my work with all possible known care, but stitch abscesses come with much more frequency than I like, especially do they come when drainage tubes are used. In Johns Hopkins

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University they have been investigating that question, and Welsh has found a kind of coccus that lives in the skin. I was recently told by a nurse, who has nursed fifty to sixty of these cases, that she has hardly seen one case where a drainage tube was used that did not have a few drops of pus and nearly always when the abdominal wall is constricted. These stitch abscesses, in my opinion, are nearly always from the coccus that gets down in the suture. The best sutures are of silkworm gut. I think Dr. Etheridge is to be congratulated on the success of these cases, and I am glad to hear him report the deaths. That is what we want to hear about, the elements that cause death, because that is what we want to eliminate.

Dr. WELLER VAN HOOK: I would like to ask Dr. Etheridge if he has used Trendelenburg's position in laparotomy, and if so what is his opinion of its value.

Dr. J. A. ROBISON: I would like to ask Dr. Etheridge if he has ever noticed the effects upon the fluids where patients are exsanguinated by giving large doses of water. I saw one case where the doctor saved life by giving large doses of water.

Dr. E. W. ANDREWS: I would like to ask what the doctor's experience has been in laparotomies with resulting hernias.

Dr. J. H. ETHERIDGE, in closing the discussion, said: In reply to Dr. Hoag I would say that I have so recently written an article on the Technique of Laparotomies, covering the ground he asks for, that I scarcely thought it advisable to touch upon such matter.

Ether is almost invariable used as the anesthetic. The patients are always very thoroughly physicked, and the kidneys carefully looked after; I give them a stimulating diuretic and hasten the elimination of the renal solids.

With regard to Dr. Robinson's remarks, I would say that there was but one case of stitch-hole yielding pus in all these cases. Sometimes a man formulates his idea and his deepest and strongest conviction in one sentence, and I think I did that in regard to sepsis in laparotomies; at present the element of sepsis in laparotomies seems to be almost entirely eliminated in my experience, but it is secured only through the most persistent and never-ending precautions against surgical filth. For the abdominal wound itself I use a large silk ligature, which is prepared and kept in quantities in antiseptic solutions in quinine bottles. I had no nephritis nor bronchitis follow, these cases have been singularly free from either of these two complications.

I have refused to operate in a few cases of organic kidney

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trouble and in diabetes, but I have taken all the rest just as they came. In six out of the fifteen fatal cases the operation was performed in extremis almost; for instance, at 3 o'clock one morning I was called upon the West Side to open an abdomen of a woman in whom it was decided that an abscess had burst. She was almost dead when I began the operation, which was undertaken in the hope that we might save her, but she died within six hours. That is one of the deaths, and I could mention others of a similar character.

Concerning the treatment of patients after laparotomies. If there has been much mutilation, or the patient is very nervous and suffers a great deal, I give her a half grain of codeine hypodermically, and in rare cases I repeat that dose. The first thing I feel for on the second day, if the patient has not slept that night, is the transverse colon to see if there is any rising of the scrobiculus cordis; if that is elevated, and she cannot sleep, I am alarmed at once, because that is the first symptom of general sepsis, which as a rule, means a funeral. If she be flat in the epigastrium, even if the temperature is up a little, I do not worry at all.

I saw a patient to-day on whom I operated last Saturday morning, for a uterine fibroid. As I found it impossible to cut off the right broad ligament and enlarged ovary, I tied a ligature right through the lower angle of the ovary, and in that way produced enormous compression on a very tender organ, and that woman almost went into hysterical convulsions when she came out from under the anesthetic. I gave her four half grain hypodermic injections of codeine. She raved all Saturday, and Saturday night, and all day Sunday. This afternoon she presented a temperature of 102°, pulse 108, respiration about 30, but as there was no bloating of the transverse colon I felt perfectly easy. I know she will not die.

Of course the great thing we are always afraid of is sepsis. If the patient gets septic peritonitis there is only one thing to do, and that is to prepare for a funeral. I do not know of anything that will save them; if such patients are saved, they do not have septic peritonitis. The first thing I look for in the patient at the expiration of twenty-four hours is sleep. If she have slept at all, it is good; if she have slept six hours, I feel that she will get well.

Dr. Andrews asked concerning hernia. I have had no hernias in this series. I believe all that is written about hernias to be misleading, for the reason that in doing large numbers of laparotomies we cannot follow up our cases. Many of

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them go far away, and we do not have an opportunity of knowing whether they have hernia or not. It is my invariable rule to tell a patient on leaving the hospital to write me on the anniversary of the operation, and if she has a hernia she will say so. The only one I ever had was in a short, stout woman who had passed the menopause. I made an incision and cut out the cicatrix, to which were attached omentum and intestine, then brought the new wound together as if it were a laparotomy. When I heard from her a year afterward she was doing extremely well.

Dr. J. C. HOAG: I would inquire if you used any form of transfusion in these cases?

Dr. J. H. ETHERIDGE: No. If there is occasion for anything of that kind, I elevate the foot of the bed and flood the intestines with what I want to put in, and hope for absorption to take place.

In regard to the Trendelenburg table, spoken of by Dr. Van Hook, I would say that I have used that a great deal, and have found it very satisfactory.

Dr. J. A. ROBISON read a paper on laryngeal paralysis. See page 112.

Dr. MOREAU R. BROWN: Simplicity should be a guide in classifying diseases in general and laryngeal disorders form no exception to the rule. I therefore object to what seemed the complicated or ill-defined division of Dr. Robison. The best classification and the one generally accepted by laryngologists, is that suggested by Göttstein, viz:

1. Interrupted conduction in the nerves which supply the larynx, peripheral paralysis; 2, lesions within the skull affecting the roots of the vagus and spinal accessory, central paralysis; 3, diseases of the muscles, myopathic paralysis. I further object to classifying laryngeal spasm or hyperkinesis with paralysis, as I understood had been done in one of the cases reported.

Dr. J. F. OAKS: Supplementing the last remark of Dr. Brown, I think that the doctor has confounded spasm and paralysis in the case that he quotes of the patient with the abdominal aneurism in which the low-pitched voice was changed to a high-pitched voice. That of course would not be due to a paresis of the thyro-arytenoid muscle, but would be more likely due to spasm of that muscle I opine that Dr. Robison's classification of paralysis of the laryngeal muscles was perhaps not as clearly put as if it had been divided into the usual clinical phenomena of laryngeal paralysis. The most common form of laryngeal paralysis is paralysis of the tensors of the vocal cords, the crico-thyroid

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muscles, and the cause of that rather common laryngeal affection is probably catarrhal laryngitis. The next most frequent form is paralysis of the posterior crico-arytenoid muscles, or the abductors of the cords, the causal factor being usually in the central portion of the nervous system near or at the origin of the pneumogastric or spinal accessory. Paralyses that affect the adductor muscles are largely functional and not due to central lesions; perhaps hysteria is the most common cause of paralysis of the lateral crico-thyroids or adductors. Paralysis of the post crico-arytenoids or abductors of the vocal cords most concern us in the treatment, and create the greatest anxiety as to the ultimate result of the case. The other laryngeal paralyses do not endanger life and call for treatment only of the neurotic condition or hyperemia, the more probable etiological factors in the case.

D. H. N. MOYER: It seems to me that this discussion has fallen into a litttle confusion of terms. The subject of Dr. Robison's paper was impairment of the voice while the title was paralysis of the larynx. There are many disturbances of phonation dependent upon overaction of the muscles, examples of which are found in chorea, paralysis, agitans and other functional disturbances. Paralysis proper is neuropathic or myopathic. The former may be divided into lesions affecting the phonic center and those of peripheral origin. The central paralyses are usually bilateral because of the close proximity of the neuclei. Peripheral paralyses are usually unilateral. It is probable that no lesion above the phonic center will result in laryngeal paralysis, because of the associated movements of these muscles; following the same innervation observed in the ocular muscles.

Dr. J. A. ROBISON, in closing the discussion said: I think that when we come to a complete understanding of the various classifications we will find they are about of an equality. Dr. Brown's criticism, I think, hardly holds so far as the classification he gives being simpler than the one I gave. I gave the classification simply under two heads, making a classification of laryngeal paralysis as being first neurotic and second mechanical. If you please you can reclassify it like Dr. Moyer has, as first neurotic, second myopathic, the myopathic of course being mechanical. I attempted to distinctly call your attention to the fact that there is a difference between spasm and paralysis. In the case which I related in which a lady died very suddenly, I distinctly stated that it was not due to paralysis, but to spasm of the glottis, which was of course an opposite condition. The Doctor's criticism in regard to the change of voice in the man with the thoracic aneurism I think

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does not hold good, because it was probably due to paralysis of the relaxor muscles. Of course if you have paralysis of the relaxors the tensor muscles will have full play, and the voice will be high pitched.

If there is paralysis of the tensor muscles the relaxor muscles will produce low pitched tones. I also stated fully that systemic poisoning and constitutional dyscrasia are etiological factors in these paralyses.

Dr. E. J. DOERING moved to appropriate from the treasury the sumof $500 with which to defray the expenses of the CHICAGO MEDICAL RECORDER for the year 1893. The motion was unanimously carried.

Dr. DOERING moved to reconsider the motion made at the meeting of December 19th, to indorse the recommendations contained in Dr. Culbertson's paper, which was read on that occasion. The motion was carried. On further motion by Dr. Doering this motion was then tabled.

The applications of Drs. Jno. T. Binkley, Jr., Robert D. Locke, H. W. Cheney, H. D. Peterson, Anthony Reed and E. J. Mellish were read and referred to the Committee on Membership.

On motion, the Society adjourned.

JUNIUS C. HOAG,
Secretary.

THE CHICAGO PATHOLOGICAL SOCIETY.

Regular Meeting, December 12th, 1892.

Dr. C. D. WESCOTT presiding.

Dr. CHAUNCEY F. CHAPMAN read a paper entitled "The Bichloride of Gold Treatment of Dipsomania." (See page 104.)

Dr. D. R. BORWER: I am one of those who have been very skeptical as to good results from the Keeley cure. What the Doctor has told us concerning the agents used is precisely the same as I had worked out by my observation of the cases of poisoning, and ill effects generally that have been brought to my attention. I was confident that atropine was a very large and important agent in the cure, as well as strychnia, and I had satisfied myself that there was no gold in the internal remedies used. I can readily understand this, because in the tonic described by the Doctor it would be impossible to keep gold in a state of solution very long. Prof. Clarke, Professor of Chemistry in the Detroit Medical School, thought he found a stable solution, and Parke, Davis & Co. put it on the mar-

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ket, but in four or five weeks the most of the gold will be found deposited in the bottom of the bottle as an oxide. I have had this tonic used in the Keeley cure tested several times and no gold reactions have been found in the solution.

I am very glad to hear that the Doctor has obtained such good results by the use of nitrate of strychnia and atropine. I have failed to find a single graduate of this Keeley institute that I should call cured, but I have known of a great many absolute failures to cure, and I know of many most serious consequences from the unwise administration of atropine. I think Dr. Chapman's publication of these remedies and his emphatic statements as to the dangers, as well as his encouraging statements as to the good results that may follow from their judicious use will be of great benefit to us all.

Dr. HENRY M. LYMAN: I had occasion to be in Dwight something over a year ago and I found that they did not undertake to cure every one there, that they considered it necessary to prepare the way by correspondence with the patient, and if possible seeing him beforehand. I put the question point blank, "Do you undertake to cure persons with organic diseases?" and they said no, that they would not receive a case if they knew the patient had an organic disease of any important organ; that they did not want to undertake to cure them, but felt their way as far as possible, and only admitted fully selected cases. They admitted, however, that at that time the number of unselected cases was quite large. Although none of them professed to know anything of the formulas given, I ascertained that they were essentially those that have been described, although I did not hear the doctor include philocarpine, which was one of the drugs employed at that time, and at certain times instead of atropine, sulphate of daturine was used.

I am once in a while consulted by some one who confesses that he has been an inmate of the Keeley Institute, but has failed of cure, or relapsed, and is no better than before. But I have no doubt there have been many cures, especially among recent cases, of those who are not organically diseased, particularly among those who want to get well. I observed with especial interest and care the psychological influences surrounding these people at Dwight; there was a great hotel full of patients sitting around together in the intervals between treatments, comparing notes with one another.

Dr. JOHN A. BENSON: I am in doubt as to whether the increase in drunkenness is absolute or relative. If it is an absolute

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increase independent of the ratio of increase of population, a much more serious condition faces us than if it is only relative. I have seen cases treated by the formulas given by Dr. Chapman, carefully watched all through the treatment and where the patient was under the physician's observation for many months, that were very greatly benefited. I now have under my care a young man who went to Dwight, and who now has visual and auditory hallucinations. I cannot say there is a sufficient disturbance of psychical equilibrium to call his condition insanity, at the same time it is sufficient to prevent his attending to his daily vocation. Another young man who is under my care took the Keeley treatment for alcoholism and cigarette smoking, and he is now suffering from auditory hallucinations which are exceptionally unpleasant; before taking the Keeley treatment he was perfectly well mentally. This is a very dangerous treatment to be used, as it is every day, by men who know nothing about the powerful therapeutic agents they are using. While I desire to go on record as being exceptionally cautious in this matter, I can say that I have seen two cases where I believe an absolute cure was effected by the use of the drugs as outlined by Dr. Chapman.

Dr. G. H. CLEVELAND: The medical profession is making a very serious mistake in considering inebriety a disease. It is one of the fads of the nineteenth century, and it will end as all fads do, in ignominious failure. It has been confessed this evening that a very large share of the effect is temporary, and that the temporary benefit is derived not from medicine, but from other influences —a new atmosphere, changes in the environment and surroundings of the habitual drunkard. It is a moral condition.

Dr. J. J. M. ANGEAR: I think the position that intoxication is a disease is wrong. I believe that there may be hereditary influences, and I believe that men may have a battle to fight through life, but by proper influences they are able to fight that battle, and we must throw the blame on the individual who gets drunk and hold him responsible; the individual who is found drunk must be treated just about the same as the man who is found picking pockets.

Dr. AD. MEYER: When working with my master, Forch, at Zürich, I saw a certain number of cures there which were effected by asylum treatment and hypnotism. What I saw convinced me that there are cases which are susceptible to psychical treatment, be it in an asylum or under other moral influences, but these cases can be kept in a state of cure only while they are under favorable conditions.

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Dr. H. N. MOYER: If Dr. Cleveland, Dr. Benson and Dr. Angear had each defined what they meant by disease there would have been no difference of opinion. If we regard medicine as but part of a greater subject, biology, we must class inebriety among the neuro-degenerative disorders, and regard it as a disease.

Dr. WM. E. CLARKE: It is doubtless true that the inebriate is more or less diseased. That inebriety is a disease per se is another question. To regard it in that light and to hold that the inebriate is not responsible for acts growing out of his condition, is, in my opinion, one of the most preposterous and dangerous doctrines that could be promulgated. I must believe that the drunkard is and should be held responsible for the condition he has brought upon himself, and for any injury to others he may do in consequence.

Dr. CHAUNCEY F. CHAPMAN, in closing the discussion, remarked: I would simply repeat what I have said in my paper, that the treatment is good, and I can see no reason why the regular medical fraternity cannot take hold of it and give the laity the benefit.

Dr. ROBERT L. NOURSE reported a case of cerebral abscess, and presented the specimens. See page 120.

Dr. WELLER VAN HOOK: At the time my clinical examination of the case was made the diagnosis of cerebral abscess could be decided almost without peradventure; the only thing that could have interfered with the diagnosis of brain abscess was the possibility of cerebral syphilis as we could get almost no history of what had taken place during the preceding months. I was present at the operation: the abscess cavity was found without the least difficulty, the first insertion of the grooved director bringing out a quantity of fetid pus. The director did not seem to be inserted with any force although the wall of the abscess seems to be a firm structure. The cause of death in this case, as nearly as I can make out from the history, since I did not see the patient after the operation, seems to have been refilling of the abscess cavity. The slipping out of the drainage tube was certainly very unfortunate and the lack of drainage seems to have been the cause of the man's death. A second operation should have been made and the tube reinserted.

Dr. J. M. PATTON: I would ask if there was at any time a latent period in the history of the case? It would be difficult to tell whether you were dealing with an abscess or a tumor, where, as in this case, there was no history of traumatism or anything that would lead you to suppose an abscess had formed, and the symptoms corresponded very closely to the symptoms given by a tumor.

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Dr. WELLER VAN HOOK: The location of the disease focus in the motor areas, or immediately in connection with the motor areas, was strongly in favor of abscess, for tumors of the brain, with the exception of syphilitic tumors, are more frequently found at the base of the brain than in this region of the cortex, although they are known to occur there at times. Another important point is the extreme subnormal temperature would point to brain abscess rather than to tumor.

Dr. J. M. PATTON: It seems to me the symptoms the patient presented in this case were more due to an area of softening which existed around the abscess and which affected the cortex, than to the tumor itself, and they were slow of development, as they often are in brain tumors.

Dr. G. H. CLEVELAND: I did not hear Dr. Nourse say anything about "cerebral" vomiting.

Dr. NOURSE: He had none.

Dr. CLEVELAND: That seems to be the only symptom absent in looking upon this as a classical case of cerebral abscess, except possibly optic neuritis. It seems to me a deplorable feature in the case that drainage was not provided for more decidedly. I have here a report of a case, appearing in the Transactions of the Royal Academy of Medicine in Ireland, of cerebral abscess that ran for a period of upward of two months, during which there was refilling of the abscess a number of times. In this case the patient recovered fully.

Dr. J. J. M. ANGEAR: I would ask if there was any definite examination of the ganglia at the base; and also whether there was a possibility of a connection of the abscess with the ventricles.

Dr. ROBERT L. NOURSE, in closing the discussion said: In regard to the falling out of the tube, I certainly agree that it was most deplorable, in fact I made an attempt to reinsert it. It had ceased to discharge when the tube fell out, and in another twenty-four hours I made an attempt to reinsert it, but I must have failed to get it in through the perforation that had been made by the grooved director. From October 31st to November 3d, the time I saw him, was the duration of the case, which seems to me too acute a course for tumor.

In answer to Dr. Angear's question, I am sorry to say that no microscopical examination was made. On macroscopical examination, however, the ventricles, optical thalmus and other portions of the brain appeared perfectly normal.

E. S. PETTYJOHN,
Secretary.

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COOK COUNTY HOSPITAL CLINICAL SOCIETY.

Meeting of January 5th, 1893.

Dr. F. N. COCHEMS presiding.

The minutes of the previous meeting were read and approved.

Dr. D. D. BISHOP reported a case of diabetes mellitus and exhibited the patient.

Dr. LE COUNT spoke of French's "Glycogenous degeneration" of the kidneys and liver found in cases of diabetes. Stain with Lugol's solution.

Dr. H. M. THOMAS: As regards dietetic treatment, would give such a patient anything he desired.

Dr. C. H. PIERCE reported a case of gangrene of the lung. Patient admitted to medical ward with indefinite history of previous illness. Expectorated large quantities of fetid pus. Signs of consolidation on one side. Needle withdrew pus easily. Transferred to surgical side. Operation.—Resection of sixth rib in axillary region. Needle thrust into lung a short distance revealed pus. Cavity opened and drained. Patient later had hemorrhages from the opening and died. Autopsy revealed lung filled with many necrotic foci and areas of various sizes. Other lung negative. Tubercle bacilli could not be found.

Dr. F. N. COCHEMS reported three cases of skull fracture. 1. Fracture in left parieto-occipital region, comminuted and depressed. No focal symptoms. On elevating fragments hemorrhage from lateral sinus was encountered; very profuse; packed with sterilized gauze, which checked the bleeding and at present time patient is recovering. 2. Extensive depressed comminuted fracture at vertex near junction of lambdoid and sagittal sutures. Patient had paraplegia but no anesthesia. On elevating the broken fragments the longitudinal sinus was opened and a stream of blood large as a goose quill spurted. Packed with iodoform gauze, removed remaining fragments, sutured scalp over packing temporarily. Patient recovered from immediate effects of operation and is doing well. 3. Extensive fracture extending in a somewhat zigzag course from right orbit over vertex to occipital region where it was lost to view; fragments could be readily moved up and down past each other. At the vertex was a small depressed area which was elevated and the patient at present seems none the worse for his accident.

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Dr. H. M. THOMAS related a case of simple concussion followed in eighteen hours by death. No apparent external injuries.

Adjourned.

WILLIAM HESSERT, } *Secretaries.*
A. F. SIPPY, }

Meeting of January 19th, 1893.

Dr. F. N. COCHEMS, presiding.

The minutes of the previous meeting were read and approved.

Dr. R. B. PREBLE exhibited a peculiar nervous case, admitted for facial neuralgia which soon after developed dullness and somnolence—no sensory, no focal symptoms. Hemianopsia, staggering gait, and tendency to fall backward, reflexes normal. Venereal history denied, and no evidences of syphilis.

Dr. ARCHIBALD CHURCH: The peculiarity of the gait and the degree of ataxia is not consistent with the ordinary forms of spinal or brain disease. The character of the gait and the tendency to fall backward would indicate cerebellar disease; the hemianopsia has the same significance. In cerebellar disease the tendency to vomiting is pronounced, more so than if the lesion is in the cerebrum. The mental symptoms and the neuralgia point to cranial trouble. If a tumor is present, even if small, choked disc might be very pronounced or absent.

Dr. F. N. COCHEMS exhibited cases of 1. Diabetes; 2. Locomotor ataxia; 3. Chorea; 4. Senile chorea.

Dr. WILLIAM HESSERT read a paper, a "Report on Typhoid Fever," including 366 cases treated in Cook County Hospital in July, August and September, 1892.

Dr. A. R. THOMAS related a case with all the signs of perforation, which recovered.

Dr. F. H. WALLS was inclined to doubt the diagnosis from the symptoms, and referred to a case with somewhat similar manifestations, where at the laparotomy which was performed a few hours afterward, no perforation was found; patient died.

Dr. R. B. PREBLE cited a case which was running a high temperature, when suddenly, without the occurrence of hemorrhage or any complication, the temperature dropped subnormal with pulse and respiration accordingly. It never again rose above normal and patient made good recovery.

Dr. THOMAS told of a similar case of termination by crisis, which occurred in his service.

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Dr. W. E. DURR spoke at length on the merits of the hot pack in reducing temperature.

Dr. A. A. KNAPP recalled 108 typhoids in his service with nine deaths. Treated with salol, calomel, and quinine. One case of excessive tympany resisted all treatment, and the respiration ran up to 70-80 a minute. In another instance embolism of popliteal artery occurred, necessitating a subsequent amputation.

Dr. F. N. COCHEMS showed specimen of large fibro-myoma of uterus.

Dr. C. H. PIERCE, specimen of aneurism of aorta.

Adjourned.

WILLIAM HESSERT, A. F. SIPPY, } *Secretaries.*

CHICAGO OPHTHALMOLOGICAL AND OTOLOGICAL SOCIETY.

Regular Meeting held at 103 Adams St., January 17th, 1893.

Dr. HOLMES in the chair.

Present, Drs. Beard, Bettman, Colburn, Fisher, Gradle, Holmes, Montgomery, Stannard, Tilley, Wood and Pinckard, and Drs. Brown, Oakes, Thomas, Wescott and Woodruff by invitation.

The annual report of the Secretary was read and accepted.

On motion of Dr. Montgomery, the rules were suspended and the present officers reëlected for another year.

Dr. TILLEY showed a patient, who fourteen months ago was struck in the eye at nasal side of cornea by a piece of steel. This passed through the ciliary body and lodged partially in retina, and partially in vitreous. It has now become encapsulated V. O. S.= nil. No disturbance of O. D. Dr. Tilley also showed another very similar case the steel taking the same course and now lodged at nasal side of disc, V=fingers at one foot. No disturbance of other eye.

Dr. MONTGOMERY showed a patient, who, until five years ago had "normal eyes." At that time he was under the influence of chloroform for two hours, for an operation on the foot. Five days after the vision in O. U. suddenly failed. At present V. O. U.= $\frac{20}{200}$. The eyes present atrophy of the retinae, and deposits and bands of new tissue in the vitreous.

Dr. WESCOTT showed a man with perfectly good family and personal history, who, nearly two years ago, complained for six

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weeks of some pain in O. S., with photophobia. Then V. O. S. suddenly failed. Dr. W. first saw him about one year ago. At that time V. O. S.=shadows. The vitreous was very hazy, but freshly effused blood clots could be seen in it. The vision improved some and then suddenly became lost. This happened several times during the past year. Some time ago the cloudiness cleared and V.=$\frac{2}{200}$. Stretching across the fundus was a band of new tissue made up of connective tissue and blood vessels. At present this band is much larger and now the V.=shadows only.

Dr. WOOD also knew the case and considered the band an organized blood clot.

Dr. BETTMAN began a discussion of mastoiditis. He said that Schwartze stated that the only pathognomonic symptom of mastoiditis is the pus seen after the mastoid is opened. Politzer says that in every case of otitis media purulenta the mastoid is involved. The well-known symptoms are: tenderness and swelling over the mastoid; pain, radiating over the side of the head; fever, and bulging of the upper wall of the external canal. Many cases present but few of these symptoms. Dr. B. has operated on ten cases during the past year, and in five of these noticed a symptom not sufficiently spoken of in the books. This symptom is a small nipple-shaped bulging of the drumhead with perforation at the apex. Most authorities speak of this symptom, but none give it as an indication for opening the mastoid. Dr. B. considers its presence an indication for operation in chronic and subacute cases. The bulging was below Schrapnell membrane in his cases.

Dr. BEARD said he had seen this symptom once. The patient was convalescing from typhoid. The bulging was high up. The case was not operated upon and died of septicemia.

Dr. BETTMAN also spoke of two cases where there was apparently no trouble in middle ear, but the mastoid was inflamed. Both cases perforated the wall of external canal and recovered without operation.

Dr. MONTGOMERY also spoke of a similar case which recovered after operation.

Dr. BEARD spoke of a boy who was perfectly healthy except for glycosuria. He had compound hyperopic astigmatism and esophoria. He had several epileptic attacks before the astigmatism was corrected, after which both the epilepsy and glycosuria disappeared. Nothing was done for the esophoria. It disappeared after correction of the astigmatism.

Meeting adjourned by limitation.

C. P. PINCKARD, *Secretary.*

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Reviews.

A Text-Book of Practical Therapeutics with Especial Reference to the Application of Remedial Measures to Disease and their Employment upon a Rational Basis. By Hobart Amory Hare, M. D., B. Sc., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia; Laureate of the Royal Academy of Medicine in Belgium, of the Medical Society of London, etc. Third Edition. Enlarged and Thoroughly Revised. Cloth, $3.75; leather, $4.75. Philadelphia: Lea Brothers & Co. 1892.

In the preface to this third edition of the Text-Book of Practical Therapeutics, the author expresses his gratification at the favorable reception accorded the preceding editions. From the time of its appearance the book has had a marked and deserved success. In six months after the first edition appeared a second was necessary, and a year and a half later a third edition was demanded. The practitioner who desires a practical work on practical therapeutics will have to go far afield before he finds a treatise worthy to be compared with the one under consideration.

The classification of drugs is especially valuable. Under each heading the drugs are placed in order of strength or power. Tables of doses of remedies, and of relative weights and measures in the metric and apothecaries' systems; and indices of drugs and remedial measures, and of diseases and remedies are appended. The author has been careful to avoid confusing the reader by the statement of different views, but has clearly and concisely described that treatment which has proved most useful in practice.

A Handbook of the Diseases of the Eye and Their Treatment. By Henry R. Swanzy, A. M., M. B., F. R. C. S. I., Surgeon to the National Eye and Ear Infirmary, and Ophthalmic Surgeon to the Adelaide Hospital, Dublin; Examiner in Ophthalmic Surgery in the University of Dublin, and in the Royal University of Ireland. Fourth Edition, with Illustrations. 518 pages. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut St. 1892. Chicago: A. C. McClurg & Co. $.300.

This handbook is without doubt the most satisfactory manual we have upon diseases of the eye. It occupies the middle ground between the students' manuals which are too brief and concise, and the encyclopedic treatises which are too extended and detailed to

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be of especial use to the general practitioner. The best evidence of the value of the book lies in the fact that it has been necessary to issue a new edition within two years after the appearance of the third edition. The work has been revised, brought up to date and new illustrations added. The appendices describe at length Holingren's method for testing the color sense, and give in detail the regulations as to defects of vision which disqualify candidates for admission into the civil, naval and military government services, the Royal Irish Constabulary and the merchant marine.

NOTES ON THE NEWER REMEDIES, THEIR THERAPEUTIC APPLICATION AND MODES OF ADMINISTRATION. By DAVID CERMA, M. D., Ph. D., Demonstrator of Physiology in the Medical Department of the University of Texas, Galveston, etc., 177 pages. Philadelphia: W. B. Saunders, 913 Walnut Street. 1893. $1.25.

The author of this little work deserves credit for the painstaking care with which he has arranged and described the remedies which have been presented to the medical profession for trial since the appearance of the last editions of the standard works on therapeutics. The remedies are arranged in alphabetical order and the origin, physical properties, solubility, therapeutic application and method of administration concisely described. Certain of the proprietary articles which by their much advertising have become known are included. The propriety of including such articles in a work of this kind is questionable. The book shows evidence of haste in its preparation; there are numerous errata, an apology is made for misplacing certain of the remedies considered, and the copy of the book in the reviewer's hands has been so hastily bound that the covers are badly warped.

HANDBOOK OF MASSAGE. By EMIL KLEEN, M. D., Carlsbad, Bohemia. Authorized translation. By EDWARD M. HARTWELL, M. D. Philadelphia: P. Blakeston Son & Co., 1892. Octavo, 316 pages. Cloth $2.75.

This book is in many respects highly satisfactory. In the first place massage is not claimed to be a cure-all and its numerous limitations are as clearly indicated as its field of usefulness. The impression that only expert manipulators can secure beneficial results is combated and the great advantage of medical and anatomical knowledge, which makes it a measure that reaches its full perfection only in the hands of medical men, is insisted upon though practice and experience are demanded. The tendency of

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professional masseurs to abuse one another seems to be a part of the craft and crops out on many pages of this work. It is however the best exposition of the subject yet seen. It places a reasonable estimate on the treatment and points out with distinctness its contraindications. Regarding the variety of its applications it is full and clear.

SYPHILIS AND THE NERVOUS SYSTEM; a Revised Reprint of the Lettsomian Lectures for 1890. By W. R. GOWERS, M. D., F. R. C. P., etc. Philadelphia. P. Blakiston Son & Co. 1892. Duodecimo, 132 pages; cloth, $1.

It is a great satisfaction to have these lectures in a compact and convenient form. The great importance of the subject and of the late manifestations of syphilis, on the part of the nervous system, which often fall only under the eye of neurologists, makes it important that a more thorough comprehension of the subject be had among general practitioners. It is pointed out that in cases where early symptoms are slight or absent these manifestations are likely to occur, with disastrous results, even when the progress of the disease is apparently controllable. The careful weighing of evidence and theory, the logical style and the judicial character of the work makes its value apparent on every page.

PAMPHLETS RECEIVED.

FAT DIGESTION. *Am. Jour. Med. Sciences*, Mar. 1892. ANEMIA OF TUBERCULOSIS, *Arch. of Pediatrics*, Nov., 1892. PURPURA HEMORRHAGICA, *Med. News*, Oct. 1892. By B. K. RACHFORD, M. D.

THE TREATMENT OF SELF-LIMITED DISEASES. By CARL G. BLACK, M. D., Reprint Trans., Ill. State Med. Soc., 1892.

DIAGNOSIS OF OCULAR HEADACHES with chart, by CASEY A. WOOD, M. D., Chicago, MEDICAL RECORDER, Dec., 1892.

IS EVOLUTION TRYING TO DO AWAY WITH THE CLITORIS? By ROB'T. T. MORRIS, M. D., *Am. Jour. Obstet.*, No. 6, 1892.

A CASE OF HOMATROPINE SUSCEPTIBILITY. By G. M. Gould, M. D., *Med. News*, Jan. 21, 1893.

AMBLYOPIATRICS. By GEORGE M. GOULD, M. D., *Med. News*, Dec. 31, 1892.

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News Items.

TYPHUS clings to New York, and has appeared at Bellevue Hospital.

THE BROOKLYN HOSPITAL receives $10,000 by the will of the late Mr. A. A. Low, father of Seth Low.

Dr. G. J. HAGENS, late of the Mercy Hospital Resident Staff, has located at 6058 South Halsted street.

THE ATLANTA POLYCLINIC is announced to open its doors on March 15th. So Georgia joins the procession.

CHOLERA IN GERMANY during the recent epidemic caused 8510 deaths, of which 7611 occurred in Hamburg.

DR. ROBERT D. LOCKE has been appointed one of the South Side medical inspectors in place of Dr. Frank Cary, resigned.

Dr. WM. THOMSON, honorary professor of ophthalmology at Jefferson Medical College, has been made professor emeritus.

THE NEW YORK ACADEMY OF MEDICINE is out of debt and owns property valued at over $500,000. Dr. D. B. St. John Rosa is President.

DR. FRANK L. ANDREWS was married January 31 to Miss Clara M. Gallup and after a short trip will reside at 3167 Groveland avenue.

THE BOSTON HOME FOR INCURABLES, by the will of Bishop Brooks, who died on January 23, receives a bequest of one thousand dollars.

AN INTERNATIONAL CONGRESS OF NURSES will be held in Chicago this year. It was originally proposed by the Royal British Nurses Association.

Dr. JULIUS L. SALINGER, lecturer on renal diseases at Jefferson Medical College, has been elected visiting physician to the Philadelphia Hospital.

HICCOUGH may be relieved, it is said, by hot infusion of capsicum. In this connection, the remedy might be considered as worse than the disease.

MR. THOMAS HAWKSLEY, M. D., M. R. C. P., Lond., formerly in practice in London died at Chertsey on December 13th, at the age of seventy.

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DR. W. E. KRAMER, who completed his term of service as interne at St. Luke's Hospital in November last, has opened an office at 1380 North Clark Street.

GYNECOLOGICAL SANITARIA appear to flourish in Indianpolis. That city now possesses two, and Dr. Eastman's new building is nearly ready for occupancy.

JACQUES, the professional faster, on January 24, completed a fifty days' fast, which, it is claimed, exceeds by five days the longest previously accomplished.

DR. ROBERT BARTHALOW, of Philadelphia, has regained his health and resumed his practice to the delight of many friends and admirers throughout this country.

PROFESSOR SENN, Surgeon General of the Illinois National Guard, in all the pomp and panoply of war, is shown to the readers of the current number of the *Clinical Review*.

THE LECONTE PRIZE of $10,000 has been awarded to the heirs of the late Prof. Villemin by the Paris Academy of Sciences, for his researches on the infectiousness of tuberculosis.

QUININE IS CONTRAINDICATED in chronic diarrhea or gastro-intestinal catarrh, and in cystitis and allied conditions says Dr. H. C. Wood, on account of its tendency to act as an irritant.

THE CHICAGO MEDICAL SOCIETY DIRECTORY FOR NURSES, Argyle Building, receives messages night or day through telephone West 550, and supplies male or female nurses on demand.

WANTED—By two trained nurses, positions in a hospital as superintendent and head nurse. Five and a half years' hospital experience. Address, L. G., care "THE CHICAGO MEDICAL RECORDER."

THE NUMBER OF DEATHS from typhoid fever in Chicago during the past year was 1,479, a little better showing than in 1891. In New York, which is about fifty per cent larger, the number was 400.

A SUM of 690,000 marks has been voted for the purchase of a sight in the Klopstockstrasse, in Berlin, for the erection of new buildings for the housing of the Imperial Public Health Department.

A SIMPLE PREVENTATIVE OF BED WETTING is that suggested by Dr. Von Trenton, namely, to raise the foot of the bed so that the child lies on an incline with the opening of the bladder uppermost.

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DR. G. FRANK LYDSTON lectured before the Detroit Medical and Library Association last month on the Etiology of Prostatic Hypertrophy and was given an elaborate dinner at the Hotel Cadillac.

The American Practitioner and News for January, appears in new and comely form, and printed from new type, with forty instead of thirty-two pages of reading matter and in single page book form.

DR. A. WATSON, one of the most prominent physicians of Jersey City, who first attained eminence by his skill in surgery during the Civil War, died in Jersey City, December 22, at the age of fifty-six.

The POST-GRADUATE School, of Chicago, has arranged to give extension Laboratory Courses in various parts of the city for practitioners. These will be held evenings at locations convenient for the participants.

TYPHUS FEVER has attacked another member of the Mills Training School for Male Nurses attached to Bellevue Hospital, New York. The first nurse, who was attacked by typhus, January 5, died on January 22.

PRESIDENT ROGERS of the Northwestern University tendered a reception to the Medical Faculties of the Chicago Medical College and the Woman's Medical College of Chicago, January 24, at his residence in Evanston.

DR. JAMES R. LEAMING, one of the prominent figures of medical New York is dead. He was one of the faculty of the Polyclinic from its beginning and lately has been emeritus professor and President of the institution.

SMALLPOX has appeared at points in Illinois and several cases have been found in Chicago in the lodging houses and one at the Bridewell. Urge vaccination and revaccination as the disease is present in all parts of the country.

THE ST. LOUIS MEDICAL SOCIETY is not anglomaniac. Notwithstanding the action of the British Medical Society in admitting women, its very much younger sister of St. Louis, is still obstinate and refuses to admit women to membership.

TO PREVENT BLINDNESS a bill has been introduced in the Minnesota legislature making it obligatory on all parents, nurses and midwives to report cases of ophthalmia in infants to the Health Commissioners under a penalty of $100.

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THE PAN-AMERICAN MEDICAL CONGRESS has issued a manifesto. This is from the Section of Nervous and Mental Diseases and promises a profitable meeting at Washington next September. C. H. Hughes, of St. Louis, Executive President.

THE ILLINOIS STATE BOARD OF HEALTH is trying to enforce the Medical Practice act as it applies to itinerants who are required by its provisions to pay a local license of $100 per month under a penalty of $200. Give them your support.

DR. FRANCIS J. YOUNG, a most esteemed practitioner of Bridgeport, Connecticut, President of the City Board of Health of that place, and President of the Fairfield County Medical Society, died suddenly at Danbury on January 15th, aged fifty-seven.

ACTINOMYCOSIS in cattle seems to be controllable by the administration of iodide of potassium which in recent governmental experiments produced 65 per cent of cures. Sound cattle kept closely with the lumpy jawed did not contract the disease.

DR. PAUL RAYMOND has been awarded a prize, offered by the President of the French Republic, for the best essay on the means to be adopted by the Legislature or by private initiative for restricting the abuse of alcohol and combating its dangers.

E. H. SARGENT & CO., for many years located at 125 State street, on the corner of Madison, have moved to 106 and 108 Wabash avenue, near Washington, where they occupy more extensive and desirable quarters. The old location will greatly miss them.

Professor THEOPHILUS PARVIN has after a long and honorable service, resigned his position as obstetrician to the Philadelphia hospital. Dr. J. W. West, assistant demonstrator of obstetrics at Jefferson Medical College, has been appointed to fill the vacancy.

SALOL in a palatable form has at last been obtained. The elixir of salol is a solution containing five grains of salol to the dessertspoonful. This renders easy the administration of salol to children and to those who are unable to take medicine in powder or pill form.

DR. JOSEPH CREAMER, of Brooklyn, N. Y., died January 6th, aged sixty-six. Dr. Creamer was well known in the medico-legal world, and during his career filled positions as police surgeon, county physician and autopsy physician to the Board of Coroners of Kings County.

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THE MARION COUNTY MEDICAL SOCIETY of Indiana held a meeting January 3d, and elected the following officers: President, Dr. J. J. Garver; Vice President, Dr. W. N. Wishard; Secretary, Dr. F. C. Woodburn; Assistant Secretary, Dr. V. D. Andrews; Treasurer, Dr. G. W. Vernon.

THE MEDICAL SOCIETY of the State of Pennsylvania will meet at Williamsport, May 16th, 17th, 18th and 19th. All who desire to read papers at the session must submit them not later than March 1st, by title, to Dr. H. G. McCormick, Chairman of the Committee of Arrangements, Williamsport.

PERMANGANATE OF POTASSIUM is the best antidote for phosphorus, so says Dr. E. Q. Thornton. It should be given well diluted, before the poison has been absorbed, and must be given in considerable excess. The reaction forms black oxide of manganese and a solution of phosphoric acid and phosphates.

THE NATIONAL QUARATINE question was discussed at a general meeting of the profession of Chicago and the State of Illinois, Feb. 4, at the Grand Pacific Hotel and a committee of twenty-two was appointed to coöperate with similar committees from New York and Philadelphia to urge the matter before Congress.

THE INTERNATIONAL CONGRESS OF CHARITIES, Correction and Philanthropy will be held in Chicago, June 12, 1893, under the World's Congress Auxiliary. It includes four sections, one of which under the chairmanship of Dr. John S. Billings is devoted the hospital care of the sick, the training of nurses, dispensary work, and first aid to the injured.

The Lancet, an abridged, restricted, alleged suggestion of a resumé of the *London Lancet* appears in new form, changed in size and style, but absolutely unchanged in the character of its contents. In its advertizing pages is an advertisement of a gleet specific. If memory serves us right, the parent publication does not seek nor admit advertisements of this nature.

The Satellite now appears in cover of spring-like and verdant green, and has changed its name to the *Universal Medical Journal.* Its size now conforms to that of *Sajous' Annual.* Polyglot instructions to its foreign contributors are given in side blocks, and a three column page of therapeutic notes is added. Dr. Sajous is to be congratulated upon the appearance of the *Journal.*

Dr. A. P. OHLMACHER who is making a special study of carcinoma and sarcoma, would be under obligations to any one send-

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ing him material for examination that has been hardened in alcohol or Fleming's solution and will return mounted sections of each specimen. Upon dropping him a line, 827 Milwaukee Ave., Chicago, he will furnish bottles and solution for hardening.

THE BRITISH Laryngological and Rhinological Association at the last annual meeting, held on December 10th, Dr. Sandford, of Cork, President in the chair, it was unanimously resolved that Professor von Schroetter, of Vienna, and Dr. Frank Huntington Bosworth, of New York, be elected Honorary Fellows of the Association. Both of these gentlemen have signified their willingness to accept.

ACCORDING TO THE REPORT of the Interstate Commerce Comission the following were the railroad casualties for the year ending June 30, 1891: The number killed during the year was 7,029, and the number injured was 33,881. Of these totals, the number of employés killed was 2,660, and the number injured was 26,140. The number of passengers killed was 293, and the number injured was 2,972.

IN A RECENT suit for fees, as an expert in court, where the physician was retained by the lawyer in behalf of his client who was prosecuting the suit, and who was aware of and accepted everything that was done, Judge Baker held that the arrangement made by the lawyer was not binding on the client. It behooves physicians to get things down in black and white with the principal in every instance.

A COMMITTEE from the Woman's Alliance was present at the meeting of the Public Service Committee of the County Board to urge the appointment of seven additional women as visitors from the county agent's office, and also that a woman physician be placed in charge of the woman's department at the Detention Hospital. The latter request was referred to the Detention Hospital committee.

THE PRACTITIONER'S CLUB under the chairmanship of Dr. Sanger Brown held its January meeting and dinner at the Great Northern Hotel, on the thirtieth of last month, and it was decided as the result of a discussion, opened by Drs. Edmund J. Doering and Charles Warrington Earle, that this organization should act during the World's Fair as a central entertainment committee for the giving of banquets and receptions to distinguished medical visitors.

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THE BRESSA PRIZE of 10,416 francs, or about 2,080 dollars, will be awarded by the Royal Academy of Sciences of Turin, to the scientific author or inventor, whatever his nationality, who between January 1, 1891, and December 31, 1894, shall have made the most important and useful discovery, or published the most valuable work on physical and experimental science, natural history, mathematics, chemistry, physiology, pathology, geology, history, geography, or statistics.

Dr. LUDWIG BRANDT has recently published some interesting statistics showing which parts of the body are most exposed to wounds in battle. In the Franco-German war 116,821 men were wounded. Of this number 99,566 survived, 11,032 died in the hospitals, and 6,223 were left dead on the battle-field. The wounds were classified as follows: Head, 11,041; neck, 1,922; breast and back, 11,495; abdomen, 9,553; upper limbs, 33,914; lower limbs, 43,952, and divers cases not especially classed, 3,721.

THE AMERICAN ELECTRO-THERAPEUTICAL ASSOCIATION at its second annual meeting elected the following officers: President, Dr. Augustin H. Goelet, 531 West Fifty-seventh St., New York; First Vice President, Dr. Wm. F. Hutchinson, Providence, R. I.; Second Vice President, Dr. W. J. Herdman, Ann Arbor, Mich.; Secretary, Dr. Margaret A. Cleaves, 68 Madison avenue, New York; Treasurer, R. J. Nunn, 119 York St., Savannah, Ga. The Third Annual Meeting will be held in Chicago on September 12, 13 and 14, 1893.

THE DIRECTORS OF THE CARNEGIE LABORATORY announce that they have arranged for short courses on the subject of cholera, to be opened to representatives of health boards, health officers, and to properly accredited medical man. It is designed that these courses shall have the same general scope and fulfill the same purpose as the cholera courses given at the Hygienic Institute in Berlin, by Prof. Robert Koch, in 1886 and 1887. They will be under the direction of Dr. Edward K. Dunham, who has worked considerably on cholera in Germany, and recently in this country.

THE CHICAGO ACADEMY OF SCIENCES has recently established a pathological section, with the object of studying medical and kindred biological problems as far as possible from a scientific, and not empirical standpoint. To insure a membership of active, studious and properly qualified persons, the section has established a thesis requirement for admission. Dr. Weller Van Hook is chair-

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man. At the meeting of January 12 Dr. A. P. Ohlenacher, as an inaugural thesis, presented with specimens and drawings "A Peculiar Nuclear Safranin Reaction and Its Relation to the Carcinoma Coccidia Question."

QUININE IDIOSYNCRASY, Dr. H. C. Wood reports the care of a woman for whom he prescribed two grains of quinine. An hour after taking the medicine the patient was taken with a burning tingling pain in the hands. This quickly spread over the entire body, and was followed by severe gastric pain and vomiting. The patient then became unconscious for several minutes. She was then covered with urticarial wheals and long ridges: Pulse 50 to 60 and feeble; temperature 102.5°. Opium and brandy were administered and after about five hours the patient returned to her normal condition.

DR. C. C. HUNT, of Dixon, Ill., brief mention of whose death appeared in the January RECORDER, is alive but not hearty. Dec. 28, while going from his residence to his office, he was struck by a runaway horse, knocked down and dragged some distance. He was taken up in an unconscious condition, his injuries being a very severe shock, scalp wound, fracture at ankle, and general bruises. We are glad to state that he is recovering rapidly and after a few weeks of confinement to the house, and hobbling around on crutches, he will resume his professional work, it is to be hoped, none the worse for an unpleasant experience.

THE BUILDING for the exhibit of the Army Medical Bureau at the world's fair, has been commenced. It will contain a complete illustration of a modern hospital ward, with all improvements and requirements for actual use, and also a bacteriological laboratory. The exhibit of surgical instruments and supplies of books, and of means of transport for the sick and wounded, will be most thorough. Apparatus for physical measurements will also be shown, and specimens of work done in the anatomy rooms of military hospitals. The building will be a handsome little structure, 150x56 feet, and will stand between the manufactures and the government buildings. Dr. La Garde, now stationed at Fort McHenry, Baltimore, will be in charge.

THE INTERNECINE strife among the homeopathic colleges is being carried on with extreme ferocity. In the January *Medical Era* the editor attacks not the regular schools, but his own brethren, and that in a somewhat wholesale fashion. It attacks first the "German Homeopathic Medical College," next the "National

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Homeopathic Medical College," nee "German College of Medicine and Obstetrics" and lastly the "Hering College of Homeopathy." The *Era* states that two colleges are enough for Chicago. Is it possible that the righteous indignation of our contemporary is inspired by a desire to perpetuate the monopoly of Hahnemannic teachings in Chicago? "If satan rise up against himself and be divided he cannot stand, but hath an end."

THE INTERNATIONAL MEDICAL MISSIONARY SOCIETY, which attempted two years ago, to get a charter for a medical college in New York, now appeals to the Boards of Regents of the State university of New York to be granted the requisite authority to constitute the society's institution a teaching school of medicine. Their endeavor appears to be to obtain for its students a modified doctorate degree in medicine which will not entitle them to practice in New York, but which will be all sufficient to enable them to practice upon the poor heathen to whom they shall be sent. The Board of Regents have philanthropically refused to grant a license to this alleged medical college, unless it complies with all the requirements called for by the Board, and this will, it is to be hoped, kill the project.

ASSISTANT CHIEF HORNSBY of the department of electricity at the World's Fair, deserves all praise for his manful stand against medical electrical quacks of all descriptions. Despite petitions, expostulations, revilings, threatenings and cursings which have been poured out upon the department, its chief and assistant stand firm and do not yield an inch. Dr. Hornsby says: "We want no quacks in this department. I consider these men charlatans and impostors and they know it. Of course they are mad against the department; but as long as Professor Barrett and I are in charge not a single foot of space will be given to the medical electrical fraternity, with their belts, batteries, shields, and all the pharaphernalia of the trade. They would give their heads to get in, but they won't be there when the fair opens."

ANNEXATION of the Medical Schools to the University of Chicago has come to a standstill; lacking money on one side and some inclination on the other. It will probably be consummated later, however.

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Therapeutic Memoranda.

ANTIPYRINE IN EPISTAXIS.

Dr. E. G. West, Boston, Mass., says that he has yet to find an agent so reliable in epistaxis or nose-bleed as antipyrine. It is his custom when a case of unusual violence occurs to saturate a pledget of cotton in a solution of antipyrine, or in the dry powder, and introduce it into the nostril. It stopped the bleeding in every instance that he applied it. The patient by this method is relieved of the disagreeable tarry clots formed by the solutions of iron so commonly used for this purpose. He finds antipyrine is an antiseptic that can be relied on, but he has learned to use it in smaller doses than formerly, and by so doing he can acquire the same results.—Ex.

TREATMENT OF CYSTITIS.

Dr. Otis, writing on this subject in the *Journal of Cutaneous and Genito-Urinary Diseases* for August, 1892, does not favor local treatment in the early stages of the disease, although he says that in some cases injection of a solution of silver nitrate into the prostatic urethra has produced a cessation of pain and of frequent urination. When the affection becomes subacute he recommends the injection of mild solutions of silver nitrate into the bladder, so as to fill it. In some cases he has used injections of bichloride of mercury solution with satisfactory results, and in the chronic cystitis of old men, especially when a good deal of mucus was present, injections of salicylic acid have been found to be very beneficial.—*Med. Record.*

WHOOPING COUGH.

Resorcin in Pertussis. Resorcin in chemically pure ten per cent solution, applied to the peri-laryngeal mucous membrane by means of an applicator in form of a thick brush of fine hairs, is said, by Moncorvo, to abort an attack of pertussis in twenty-four hours and cure the disease inside of two weeks. Applications are to be made every two or three hours. In severe cases antipyrin in daily quantity of from one to three grammes are given at the same time as well as inhalations of pyridine.—*Ann. de la Polic.*, June, 1892.

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MEDICAL STAFF.

M. H. LACKERSTEEN, M. D., M. R. C. P. Lond., General Medicine; Prof. of Med. Post-Graduate Med. School of Chicago.

JOSEPH B. BACON, M. D., Rectal Surgery; Prof. of Rectal Surg. P.-G. Med. School; Rectal Surg. to the Charity Hosp.

FRANKLIN H. MARTIN, M. D., Diseases and Abdominal Surgery of Women; Prof. of Gynecology P.-G. Med. School; Gynecologist to Woman's Hospital.

W. FRANKLIN COLEMAN, M. D., M. R. C. S. Eng., Diseases of the Eye and Ear; Prof. of Ophthalmology P.-G. Med. School; Oculist and Aurist to St. Elizabeth Hospital.

WILLOUGHBY WALLING, M. D., Diseases of the Nose and Throat.

D. A. K. STEELE, M. D., Surgery; Prof. of Princ. and Prac. of Surg. Coll. of Phys. and Surgs.; Prof. of Surg. P.-G. Med. School.

S. T. YOUNT, M. D., Nervous Diseases; Prof. of Nervs. Dis. P.-G. Med. School.

A. SCHALEK, M. D., Skin and Genito-Urinary Diseases.

ROBT. DODDS, M. D., Obstetrics.

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Fig. I—Normal.

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Fig. XVII—Dorsal.

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THE
CHICAGO MEDICAL
RECORDER

MARCH, 1893.

Original Articles.

DEMONSTRATION OF SPECIMENS FROM OPERATIONS ON THE KIDNEY, WITH PRESENTATION OF PATIENTS.

By DR. CHRISTIAN FENGER, Chicago.

I desire to-night to demonstrate some specimens, gathered in the course of years from surgery of the kidney, and to present before the Society certain patients upon whom I have operated. I shall not attempt any systematic treatment of the subject of surgery of the kidney, but have grouped together specimens taken from patients upon whom I have operated. A short synopsis only of the histories, sufficient to illustrate the specimens, will be given here, as a detailed report of the cases will be published in connection with special papers on the different subjects at a future time.

We will consider first: carcinoma of the kidney; second, stones of the kidney, and third, stones in, and stenosis of the ureter.

1. CARCINOMA OF THE KIDNEY.

CASE I. With presentation of specimen. J. P. B., miner, aged forty. Six years previous to the operation he suffered from vague pains in the back and attacks of general malaise. Four years later he jumped from a rock to the ground, a distance of about ten feet. This was followed by copious hematuria which continued for eight days; intermittent attacks of hematuria of greater or less severity occurred from this

Chicago Medical Society, Feb. 6, 1893.

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time until three months before the operation, when the hematuria became continuous. The patient had also had pain in the left lumbar region, ever since the first attack of hematuria.

Physical examination negative ; no tumor, no increased dullness on percussion. The patient was anemic and weak. Amount of urine in twenty-four hours, from sixteen to twenty-four ounces. On one occasion a shred of tissue was found, which on microscopical examination was found to contain medium-sized oval and spindle-shaped cells with oval nuclei.

Diagnosis: Incipient sarcoma.

Operation: On April 24, 1888, lumbar nephrectomy was performed. The patient rallied well from the operation, but in twenty-four hours symptoms of uremia appeared, he became comatose and cyanotic with normal temperature and rapid pulse, and died on the third day after the operation. At the autopsy the right kidney was found to be normal in shape and size ; microscopical examination showed a slight cloudy swelling. The left kidney, which is here presented, shows a tumor the size of an orange, with part of the capsule adherent to it, situated in the middle of the kidney, leaving the upper and lower extremities free. There is a conical projection of the tumor down in the pelvis which resembles a mountain, and on the top of this mountain is a little ulcer. This is the place of the hemorrhage. It is strange however that the hemorrhage should have existed for more than two years and the ulcer still remain so small.

Case II. With presentation of patient and specimen. V. L., tailor, twenty-seven years old. Previous health good with the exception of polyarticular rheumatism at age of eighteen. His father had undergone an operation for carcinoma of the lip, which resulted in cure.

In June, 1890, he suffered from hematuria which persisted for two weeks and was followed by intermittent attacks of weakness. The hematuria was accompanied by pain in the left hypochondrium, in the region of the infundibulum, or pelvic end of the ureter.

Physical Examination: The patient was anemic. Neither a tumor nor the lower end of the kidney could be felt. The urine was acid and contained a moderate quantity of blood. A diagnosis was made of nephrolithiasis or tumor, and exploratory incision recommended.

Operation: November 27th, 1890. An exploratory lumbar incision was made, which revealed a tumor the size of an

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egg, in the middle of the kidney. After ascertaining by an exploratory incision over the right kidney that it was of normal size and appearance, left lumbar nephrectomy was performed. The patient made a good recovery. He remained eleven weeks in the hospital. The fistula closed after six months. A small temporary abscess formed a year later. In the first year after the operation the patient gained fifteen pounds in weight, and he is now in perfect health.

The tumor, which I here present, is round, two inches in diameter, situated on the anterior surface of the middle of the left kidney. It has a conical prolongation three-quarters of an inch in height projecting into the pelvis. On the apex of this cone there is a small ulcer or abrasion which was the source of the hematuria. Upon microscopic examination the tumor was found to be a tubular carcinoma with cubic and cylindrical cells. No capsule surrounded the tumor, but the kidney tissue was partly infiltrated and partly pushed aside, which would signify a reasonable degree of limitation.

REMARKS. 1.—Early diagnosis is impossible when the tumor is situated in the upper portion or even in the middle of the kidney, and when the lower third of the kidney is not changed in size or shape. When a tumor is so large that it can be felt by bimanual palpation, the disease is as a rule, of relatively long standing. In my experience it is exceptional to be able to palpate the lower third of a kidney of normal size and in normal location.

2. Hematuria is a symptom of the utmost importance when it occurs early, but it is absent in one-fourth of the carcinomata and one-half of the sarcomata in adults, and in three-fourths of both carcinomata and sarcomata in children. It is an early symptom if the tumor at an early stage of the disease, extends into the pelvis, and necrosis of the covering mucosa takes place. The importance of early hematuria lies in the possibility of extirpating the kidney before the tumor is so large as to be felt by palpation, and on early operation depends the prognosis as to permanent cure. The hematuria is independent of movements, as walking, jolting, horseback riding, etc., and in this respect it differs from the hematuria of renal calculus. In those early cases in which no tumor can be felt however, it will be often impossible to make a differential diagnosis until in the progress of the operation a tumor is found, which extends the operation from an exploratory incisionin to a nephrectomy.

3. Pain as a symptom is not characteristic of tumors of the kidney, in contradistinction to renal calculus or pyonephrosis.

4. Lumbar exploratory incision for exploration of the other

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kidney I consider preferable to abdominal nephrectomy, which has been advocated in cases of this kind. While the latter operation permits satisfactory palpation of the kidney and ureter, I consider lumbar incision as practiced in Case II, less grave, and perfectly sufficient to obtain the necessary information.

5. The prognosis of nephrectomy for malignant tumors is grave. In 1888, Tuffier reported a mortality of 65 per cent. Chevallier collected all the cases to be obtained from the literature a year later, and announced the mortality as 62.5 per cent. Radical cure is very rare. Tuffier, in 1892, stated that the cures on record were only sporadic. Terrillon, Israel, Küster and Sigrist report radical cures.

Tuffier insists that the patient must be well for six years after the operation before a radical cure can be considered certain, as the disease may last for six to ten years. Israel considers three years a sufficient time for radical cure. Czerny lost one patient from relapse two years after nephrectomy. In this case the relapse must have commenced long before that time.

This gloomy outlook is brightened by the recent report from Israel, who has had a quite extensive experience and whose results have been better than those of any previous operator. He reports eleven nephrectomies for malignant tumor, with a mortality of two, or eighteen per cent. Of the nine who recovered, two died from relapses, one after six, the other after thirteen months. Seven are now alive and well. Two of these may be considered as radical cures, as five and one half and four years respectively have elapsed since the operation. This gives a percentage of radical cures of eighteen per cent. The other five have been operated upon too recently to be considered cured. Israel is right in stating that on early diagnosis and early extirpation depend the possibility of radical cure. The earliest diagnosis is that in the renowned case of Israel in which he palpated a carcinoma the size of a cherry, and extirpated the kidney, with radical cure. I do not know of any case in which a relapse kas occurred later than the time which has elapsed since the operation in my second case, namely two and one-half years.

2. STONES OF THE KIDNEY.

Stones of the kidney are composed of uric acid, urates, oxalate of lime, phosphates, and of mixtures of these. They may be classified as aseptic and septic stones. Aseptic stones in an aseptic kidney with aseptic urine constitute one class, and septic stones in a suppurating kidney with alkaline urine, the other class. In

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the first class the stone is the important, or rather the only feature, while in the second, the stone is secondary in importance to the sepsis or suppuration in the pelvis and the kidney.

Morris, who was the first to operate for stone in an aseptic kidney has termed the operation, nephrolithotomy in contradistinction to nephrotomy by which term he designates the operation on the septic kidney. I consider this a good distinction and think that it will be adopted in the literature, because these two operations are entirely different both clinically and in their results.

a. Nephro-Lithotomy.

I present here three stones from aseptic kidneys, which are composed of a small nucleus of urates, surrounded by layers of oxalate of lime. Cross sections of these stones are often very beautiful, resembling agate. They are very hard. The surface is usually of a chocolate color, and is covered with little, sharp, projecting points.

CASE I. With presentation of patient. H. J. G., aged twenty-six. He has had severe pain in the left lumbar region for eighteen years, so severe at times that to relieve it he would lower the left shoulder and bend to the left. As a result of this a scoliosis has taken place, with torsion in the lumbar region simulating a tumor. Several years ago he consulted me for pain and occasional hematuria.

Operation: September 16th, 1891. No stone could be found on exploration with the needle, but on digital exploration, the stone which I here present, was found in a dilated calyx in the upper third of the kidney. It corresponds in shape to the location in which it was found and presents a groove corresponding to the sharp border of the entrance to the dilated calyx, and which separates an upper portion located in the calyx from a lower portion which extends down into the pelvis.

During the operation the hemorrhage was so serious that I contemplated intravenous injection. Fortunately this procedure was not necessary. The patient made a good recovery and is now entirely well.

CASE II. M. M., aged 34. The patient had suffered from severe pain in the right lumbar region for at least twenty-six years. At times the pain was so excruciating as to make him unfit for work. He also suffered from hematuria and some pus was found in the urine.

Operation August 25, 1892. The pelvis and calices were found to be moderately dilated. The hemorrhage was consider-

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able. The large, rugged stone here presented was found in the infundibulum. Four smaller stones composed of oxalate of lime surrounding coagula of blood were found on digital exploration in a dilated calyx having a rather narrow neck, and which was located in the lower third of the kidney. These smaller stones could not have been found by exploration with a steel sound. Careful digital exploration was required to find them. Exploration of the ureter showed that it was not obstructed. The patient had a fistula which closed after four months, and he made a good recovery. The intensity of the pain which this patient suffered may be explained by the sharp points, like pin points, on the surface of the stone.

CASE III. G. N., aged 35. The patient had suffered from pain in the left lumbar region for at least thirty-one years. The pain was so severe as, at times, to disable him for work and to force him to drink large quantities of whisky. Slight hematuria. Dr. Thomas A. Davis, who kindly asked me to operate on this patient, had found blood on several occasions upon microscopical examination of the urine.

Operation, December 3, 1892. A large stone, with a conical lower end, was found in the infundibulum. Little if any dilatation of the pelvis and calices was present. No other stones could be found upon digital exploration. The hemorrhage from the kidney was so alarming as to preclude the possibility of exploring the ureter, and to necessitate packing the pelvis and wound in the kidney with aseptic gauze.

Microscopic examination of the kidney tissue showed that it was almost normal. Only one very small patch of interstitial infiltration around a glomerulus in the midst of healthy kidney tissue was found. The wound closed in four weeks.

b. Nephrotomy.

CASE IV. The patient was a man from 35 to 40 years of age, who suffered from cystitis, pyelitis and pyonephrosis. Upon operation the 144 small, round and flat uric acid and urate stones, often facetted, here presented, were found. The removal of these stones did not help the patient materially. This shows that in such cases the stone is often of secondary importance while the sepsis and inflammation remain.

CASE V. A man from 20 to 30 years old. Upon operation the large phosphatic stone here presented was found, which filled almost the entire pelvis of the kidney. The patient died from

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uremia. The autopsy showed that the other kidney contained a stone of equal size.

c. Nephrectomy.

CASE VI. J. D., miner, aged 23, suffered a traumatic rupture of the kidney, caused by a fall of rock, which struck him in the right lumbar region. This injury was followed by a perinephritic abscess which left a fistula.

Operation, February 2, 1892. The kidney was found to be atrophied and suppurating; therefore nephrectomy was performed. In a perinephritic cavity the stone, here presented, was found. It is composed of oxalate of lime around a uric acid nucleus. The broken surface seen in the specimen proves that the stone was crushed at the time of the injury and forced out through the rupture in the kidney. Microscopic examination of the kidney showed diffuse suppurative nephritis. The patient recovered.

REMARKS.—Newman has collected forty-two cases of nephrolithotomy with no deaths; McCosh, eighteen cases with one death; Legueu, forty-three cases with three deaths; Tuffier, forty-three cases with three deaths; this gives a mortality of six per cent. In these operations nephrolithotomy was performed and the kidney incised on the convex border. The result is different when the pelvis contains a stone and the operator does not wish to make an incision in the kidney, and so incises the pelvis. Twelve such cases are on record with a mortality of sixteen per cent as compared with six per cent mortality following incision through the convex border of the kidney.

The material at our disposal is not yet large enough to draw conclusions from, but it would seem better to open on the convex surface of the kidney. Nephrolithotomy with a mortality of six per cent has left only three per cent of fistulas. Pyelotomy, as incision through the pelvis might be called, on the contrary, has a a mortality of sixteen per cent and has left twenty-nine per cent of permanent fistulas. This would seem to show that a pelvic wound will not heal so readily as a wound through the kidney.

One hundred and fourteen cases of nephrotomy, or operations on the septic kidney, are reported by Tuffier with a mortality of thirty-three per cent and with permanent fistulas in thirty-four per cent. This high rate of mortality is in the main due to the septic condition of the kidney.

The second alternative in cases of nephrolithiasis is nephrectomy. When the stone is removed by this operation, there is of course no fistula. If the patient survive the operation, he is cured.

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Tuffier reports sixty-seven cases of lumbar nephrectomy with a mortality of thirty-nine per cent, and sixteen cases of abdominal nephrectomy with a mortality of thirty-seven per cent.

The statistics of nephrectomy give a mortality of thirty-eight per cent as compared with thirty-three per cent, the mortality from nephrotomy, consequently we must regard nephrotomy as the operation of choice.

In operations on the kidneys the question of hemorrhage is important. In former times I used the Paquelin cautery, but now I use the knife first and tear through afterward, and find that the hemorrhage is no greater than when I used the Paquelin cautery. Hemorrhage may be controlled by packing with iodoform gauze or by suture (Tuffier.) The wound in the aseptic kidney can as a rule be sutured.

In operating for stone in the kidney, the introduction of an exploring needle through the convex surface of the kidney is uncertain and unsatisfactory. The exploration of the kidney with the steel sound is also unsatisfactory, because while one stone may be found, smaller stones may be left in the calices, and these are the more dangerous, because they are about the size to pass into and occlude the ureter. Tuffier reports twenty errors in 114 cases, in nine of which an existing stone was not found, and in eleven a stone was removed, but others were left in the kidney. This incomplete extraction resulted in prolonged drainage and in thirty-four per cent of fistulas which necessitated secondary operation.

Nine of the thirty-eight deaths reported by Tuffier occurred as a result of stone in the other kidney existing at the time of operation.

The only way to avoid leaving stones in the kidney is to make the opening large enough for digital exploration. The kidney should always be incised near the center so that the finger tip can explore the entire kidney. If the entrance to a calyx is not large enough to admit the finger it should be broken through, so that the operator may be sure that no stone has been left. The ureter must also be examined so as to be sure that it is patent from kidney to bladder.

3. SURGERY OF THE URETER.

1. *Stone in the Ureter.*

CASE I. E. V. C., aged thirty-five. In December, 1890, the patient had the initial attack of renal colic. Six months later came a second attack. The attacks then became more frequent

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until he suffered almost constant pain. There was no hematuria. No tumor could be detected, nor could the kidney be made out by palpation. Diagnosis, nephrolithiasis.

Operation: March 27th, 1892, nephrolithotomy. The pelvis of the kidney was found to be somewhat dilated, no stone could be found on intrarenal digital exploration. A probe from the wound in the kidney would not pass down the ureter. An examination of the ureter by palpation, after enlarging the lumbar wound, disclosed a stone in the ureter one inch and a half below the infundibulum. A longitudinal incision three-quarters of an inch long was made in the ureter and the stone, which I here present, removed. The groove on the stone was caused by a needle which was pushed into the ureter in the endeavor to dislodge the stone and force it up into the pelvis. A second smaller stone was felt above and removed. A No. 9 French scale flexible bougie could now be passed down into the bladder.

The incision was not united by sutures. On the first day urine passed down into the bladder. After the third day no urine was found in the dressings. The wound or fistula closed in a month.

Tuffier has collected seventeen cases of operation for stone in the ureter, with three deaths and three resultant fistulas. Stones in the upper portion of the ureter have been operated for in nine cases, in four of which the stone was removed by pushing it up into the pelvis, and then incising the pelvis, that is, pyelotomy. One death resulted from nephritis, and the other three patients recovered, two with permanent fistulas. In one case nephrolithotomy was performed, the stone pushed up and removed through the wound in the kidney. This patient recovered. Longitudinal ureterotomy was done in four cases which were all cured, leaving one fistula.

2. *Exploratory Ureterotomy for Stone.*

Exploration of the kidney and ureter by means of ureterotomy, for the purpose of clearing up diagnosis, may be made without detriment to the patient, as will be seen from the following case:

Case II. Exploratory operation on right kidney and ureter for stone. M. R., aged twenty-eight. Diagnosis: Stone in an aseptic kidney. Operation September 15th, 1892. Lumbar incision. Palpation and examination with needle negative. The kidney was incised by the Paquelin cautery. Profuse hemorrhage followed, and I could not find my way into the pelvis. The pelvis, which was normal in size, was not accessible from below after

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lifting up the kidney. The ureter was now incised and a probe passed down into the bladder and up into the pelvis and calices, but no stone could be found. The wound in the ureter was closed by silk sutures passed through the muscular and external coats of the ureter. One drain was passed into the kidney and another down to the wound in the ureter. For two days after the operation no urine escaped into the dressings. For eighteen days thereafter the dressings were saturated with urine. From the fifth to the seventh day, blood was found in the urine. The fistula closed in fifty days.

3. *Stricture of Ureter.*

Case III. (With presentation of patient.) Valvular stricture or stenosis of pelvic orifice of ureter in a somewhat floating kidney. Mrs. H., twenty-eight years of age, eight years ago had the first attack of intermittent hydronephrosis; the tumor disappeared in two weeks. She had a second attack after child-birth, which lasted eight days. Attacks occurred at intervals of one or two months until two years ago when they became more frequent, occurring every two weeks. During the last year she has had an attack every week. On March 11, 1892, during an attack of pain, a tumor could be felt in the region of the left kidney. Five days later no tumor could be found. During and immediately after the disappearance of the tumors the urine was milky from pus.

Diagnosis: Intermittent pyonephrosis; stenosis in pelvis or ureter, possibly from stone. Advised nephrotomy and exploration of ureter.

Operation May 31, 1892: Nephrotomy in the interval between attacks. I desired to operate during an attack but evacuation took place the night preceding the operation. Before the kidney was reached, the spleen which was somewhat movable, had to be pushed up out of the way. On palpation, no stone could be felt in the kidney or the pelvis, the latter felt like an empty sac. An incision was then made through the convex surface of the kidney. On digital exploration some dilatation of the pelvis and calices was present, but no stone could be found. Catheterization of the ureter was impossible. The pelvis was now opened from its posterior surface. This revealed a valvular opening from the pelvis into the ureter. The valve was divided transversely and its ends of the incision united by a suture. A bougie was inserted through the wound in the kidney and brought down into the ureter, and retained there for two days. The wound in the pelvis was united by sutures. The floating kidney was secured by nephror-

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rhaphy, the wound in the kidney drained and the usual dressings applied. The patient recovered, without fistula, and up to the present time has had no return of the pyonephrosis.

Case IV. Traumatic stricture of ureter close to its entrance into the pelvis of the kidney. Intermittent hydronephrosis. The patient was a man forty-seven years of age. Thirty-four years ago in jumping from a horse to the ground, on account of miscalculation of distance, he sustained an injury by a violent jerk, his feet not touching the ground while his hands still retained hold of the hames. He was in bed a month at this time, and after ten years the hydronephrosis developed which eventually compelled him to come under my care. A year after the first attack, he had four or five attacks a year, lasting two or three days and then subsiding rapidly, being followed by pus in the urine. I examined the patient on November 12, 1892 and found a tumor in the left kidney, and made a diagnosis of nephrolithiasis in the pelvis or infundibulum, or pyonephrosis from stone or obstruction in the ureter.

Operation: November 26th, 1892. No tumor could at this time be felt. I made a lumbar nephrotomy, and found the kidney sacculated, but could find no stone in the pelvis or calices. The ureteral entrance could not be found through the wound in the kidney. The dilated pelvis was now incised on its posterior wall, but still the opening of the ureter could neither be seen nor felt. The ureter was now isolated. Its upper end for half an inch was found to be imbedded in cicatricial tissue. Lower down, though small in caliber the ureter was normal. A longitudinal incision one centimeter long was now made in the ureter just below the cicatrix. The sound could now be passed easily down into the bladder, but when passed upward its progress was stopped by a stricture situated immediately below the pelvis. The stricture was one centimeter long and the ureter below it was somewhat narrowed, not in one place, but diffusely throughout its extent. The stricture was then incised up into the pelvis. A plastic operation was now made similar to that of Heinecke-Mikulicz for stenosis of the pylorus; that is, the ureter was united to the pelvis on that principle. The pelvic wound was united by sutures. No bougie was left in the ureter. A drainage tube was passed into the pelvis through the wound in the kidney. The usual external drainage was employed and the wound united. The patient left the hospital in six weeks with the wound perfectly healed. The urine at this time contained no pus visible to the naked eye. On microscopical examination, a few isolated pus cells could be found in the sediment.

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REMARKS.—In all cases of pyonephrosis we may expect to find some obstruction to the flow of urine either in the renal pelvis, the ureter, the bladder or the urethra. If the obstruction is external to the ureteral opening in the bladder, the pyonephrosis is double; if on one side, the obstruction must be in the ureter or the pelvis of the kidney.

Lumbar nephrotomy for pyonephrosis has a mortality of 23.3 per cent, and primary lumbar nephrectomy a mortality of 34 per cent. (Tuffier.) Secondary nephrectomy must be made to close the fistula after some time has passed, but this should not be delayed until amyloid nephritis of the other kidney has set in. The mortality from this operation is low, 5.9 per cent. If we add the 5.9 per cent mortality from secondary nephrectomy to the 23.3 per cent mortality from primary nephrotomy, the total of 29.2 per cent is still 7.8 per cent less than the mortality from primary nephrectomy, which is 37 per cent, and 4.8 per cent less than the mortality from primary lumbar nephrectomy, which is 34 per cent. Consequently, in pyonephrosis, nephrotomy is the operation of choice (Tuffier).

The disadvantage of nephrotomy as compared with nephrectomy for pyonephrosis is that a fistula remains in 45 per cent of the cases. This means that after a time a secondary nephrectomy must be made. Fistulas remained in 34 per cent of the cases of calculous pyelitis and in 54 per cent of the cases of non-calculous pyelitis. The smaller number of fistulas in calculous pyelitis is to be accounted for by the fact that in a certain number of these cases the stone, prevents the passage of urine, and with the removal of the stone the obstruction is removed. Where there is no stone, simple nephrotomy will leave the impediment in all cases. If in both calculous and non-calculous pyonephrosis we can reëstablish the permeability of the ureter, we may expect to materially diminish the percentage of permanent fistula.

Tuffier, in the discussion of pyonephrosis, in his excellent monograph on surgery of the urinary organs which appeared in Volume VII of Duplay and Reclus, Traite de Chirurgie in May, 1892, remarks: "It would be interesting to know the condition of the ureter, the strictures, bands, valve-formations that transform open pyelonephritis into a temporarily closed hydro- or pyonephrosis. As yet these investigations for the intermittent pyonephrosis have not been made."

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THE OPERATION FOR PYONEPHROSIS.

The operation for pyonephrosis should be nephrotomy, followed by exploration of the ureter from the kidney or pelvis to the bladder, and, if necessary, by a plastic operation for valves or stricture in the ureter.

A differential diagnosis is impossible before the kidney is incised. It is often impossible to determine beforehand whether a stone is or is not present; the number of stones; whether the stones are located in calices, the pelvis or ureter, or whether or not the obstruction is caused by a valve, band or stricture of the ureter. It is also impossible to know beforehand the condition of the kidney tissue, whether it is totally destroyed, filled with multiple abscesses, or if a greater or less amount of functionally valuable tissue is present.

The operation for pyonephrosis must in a great number of the cases be exploratory, and the urinary passages should be thoroughly explored for stones, tumors, tuberculosis, stenosis, etc., from the kidney to the bladder. That this exploration can be done successfully in case of valve-formation at the pelvic orifice of the ureter or in case of stricture near this region, has been shown in the case reports above given.

I propose the following plan of operation, which I have followed out in a number of cases:

1. Lumbar incision, oblique, from the corner of the twelfth rib and erector spinæ muscle, downward and forward toward the ilium.

2. Palpation of the kidney after detachment of the adipose capsule, and palpation of the pelvis.

3. Exploration of kidney by needle to detach stone is unreliable.

4. Excision of a piece of kidney tissue for microscopical examination.

5. The incision should be longitudinal, on convex border of kidney, and one and a half to two inches in length, and may be made by the Paquelin cautery or the knife. If possible I make the incision guided by an aspirator needle which has been introduced into the dilated pelvis to explore for pus. Without such a guide it may be very difficult to find the way into the non-dilated pelvis, as was shown in Case II, exploratory ureterotomy.

6. Exploration through the renal wound by a curved steel urethral sound, to detect stones in the pelvis and calices, is also unreliable. In 9 cases an existing stone was not found, and in 11

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cases one or more stones were extracted, but stones still left in the kidney, that is, incomplete extraction. This resulted in 34 per cent of permanent fistulas which required later another operation for their closure.

7. Digital exploration of the pelvis and calices I consider the most satisfactory method, and the one that will best secure against incomplete extraction of stones. A narrow entrance to a dilated calyx can be dilated or ruptured by the finger.

8. Exploration of the ureter as to its permeability should be done from the renal wound by a long flexible silver probe (a uterine probe) or an elastic bougie, either olive pointed or not. If the bougie passes into the bladder, the examination is at an end.

9. The size of bougie that will pass through a healthy ureter is from 9 to 12, French scale.

10. If the pelvic orifice of the ureter cannot be found from the renal wound, it should be sought for by opening the pelvis, pyelotomy, or by incising the ureter, ureterotomy.

11. Pyelotomy. A longitudinal incision, half an inch to an inch long, in the posterior wall of the pelvis can be made while the kidney is lifted upward against the twelfth rib. This procedure is easy if the pelvis is dilated, but may be impossible if the pelvis is of normal size.

a. Extraction of a stone in the infundibulum through an incision in the pelvis is advised against by Tuffier on the ground that pyelotomy increases the danger of the operation, and that union of the wound in the pelvis is difficult. My experience in this regard is not in accord with Tuffier's statement.

b. The pelvic wound should be united by extra-mucous sutures.

12. Ureterotomy. A longitudinal incision from half a centimeter to two centimeters in length is sufficient for the extraction of a stone which cannot be dislodged upward into the pelvis, and for exploration of the ureter if the pelvis is not dilated, and consequently not easily accessible.

The wound in the ureter may he closed with extra-mucous sutures, or may be left open. In either case the wound will close without causing stenosis of the canal. A ureteral fistula is not to be expected if the ureter is open between the wound and the bladder.

13. A valve, or valvular stricture at the pelvic orifice of the ureter is usually caused by lateral insertion of the ureter in a dilated pelvis. A plastic operation upon the valve, in order to secure

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free passage of urine from the pelvis into the bladder, can be performed through the incision in the pelvis as shown in Case III.

Küster performed a similar operation on a valve, but finding a stricture lower down in the ureter he proceeded to resect the upper stricture portion of the ureter, and united the cut end of the ureter below the stricture with the pelvis.

14. A stricture in the ureter, if not too long, can be treated by a plastic operation on the plan of the Heinecke-Mikulicz operation for stenosis of the pylorus, longitudinal division of the stricture and transverse union of the longitudinal wound.

This method of operating for ureteral stricture seems to me preferable to resection of the strictured part of the ureter (Küster's operation) for the following reasons:

a. It is a more economical operation and preferable when the elongation of the ureter is not sufficient to permit the two cut ends of the ureter, after excision of the stricture, to come in contact without stretching.

b. It is easier to secure union of a ureter which has been incompletely divided in a transverse direction. Tuffier's experiments on dogs gave the following results: Six cases of transverse ureterotomy all failed; four cases of longitudinal ureterotomy were followed by a successful result in two cases.

15. Resection of the upper end of the ureter and implantation of the distal end into the pelvis has been performed in an important and interesting case by Küster, and the result was a brilliant success. His method was to split and unfold the end of the ureter, and to implant it into the opened pelvis, to which it was united with sutures.

In a similar case of stricture in the upper end of the ureter, especially if the ureter were not elongated or the kidney movable, I should prefer the plastic operation already described, as it is easier of technique, and as it proved successful in my case of traumatic stricture in the ureter below the pelvic orifice.

16. The ureter is accessible through an extra-peritoneal incision, a continuation of the oblique incision for lumbar nephrotomy from the twelfth rib down along and one inch anterior to the ilium and along Poupart's ligament to about its middle. This incision as shown in the drawing made by me from investigations on the cadaver, gives access to the upper three-fourths of the ureter and down to within an inch and a half or two inches above the bladder.

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The vesical and lower pelvic portions of the ureter may be reached, as Cabot of Boston has pointed out, by means of the sacral operation, or Kraske's method modified by osteoplastic, temporary resection of the os sacrum. In woman the vesical portion of the uretra is accessible through the vagina.

The vesical orifice of the ureter may be reached from within the bladder by supra-pubic cystotomy in man or by dilatation of the urethra, or supra-pubic or vaginal cystotomy in woman.

In conclusion, I wish to cite literally the remarks made by Küster at the conclusion of his communication to the German Surgical Congress, because I fully agree with Küster and think that his remarks apply well to my proposals of this evening. Küster says:—

"Gentlemen: When I bring this case before you, it is not to present to you a curious operation or a curiosity in the line of operating. The value of the observation appears to me to lie in the fact that it shows a method by which it may be possible to avoid the mutilating and dangerous operations of nephrectomy in cases of pyonephrosis where and when we do not know that the other kidney is perfectly healthy."

I would add—and a means to save or avoid some instances of permanent fistulas following nephrotomy for pyo- or hydronephrosis.

NOTE.—When I commenced to investigate the question of stenosis of the ureter and its possible operative treatment, I did not know that Küster had commenced work in the same direction. The first publication of Küster's case which reached me, was his report before the Twenty-first German Surgical Congress, June 8 to 11, 1892, which appeared in the *Centralblatt für die Gesammte Medicin* for August 13, 1892.

My first operation for stenosis was performed at a clinic and described in a clinical lecture given on May 31, 1892, at the Emergency Hospital, Chicago, for the Chicago Polyclinic.

269 LA SALLE AVENUE.

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MANAGEMENT OF CERTAIN CASES OF RECURRENT URINARY CALCULI WITHOUT CUTTING OR CRUSHING.

By EDMUND ANDREWS, M. D.

SURGEON IN CHIEF OF MERCY HOSPITAL, CHICAGO.

GENTLEMEN: I wish to invite your attention to the following facts:

1. Recurrent calculus of kidney origin is in a majority of cases a self-limited disease. I mean by this that in perhaps four cases out of five, the kidney in a period varying from a few months to two years ceases to produce any more stones, and returns to a healthy condition.

2. A large portion of the stones after reaching the bladder are one after another spontaneously expelled through the urethra, and thousands of patients are thus permanently cured.

3. If from prostatic deformity or other causes the little calculi fail to engage in the urinary outlet, they are retained and become soon too large for spontaneous expulsion.

4. When they first reach the bladder these stones are usually so small that if they do not escape of themselves, they can be pumped out with an evacuator without cutting or crushing, and this trifling operation can be repeated as often as necessary, generally without even an anesthetic, until the kidney closes out its stone-producing business. In such cases it is the neglect of early attention that allows the stones to become large enough to require the great operations of litholapaxy or lithotomy.

Of course I know that kidney stones do not always descend to the bladder, but they usually do so, and when they do their removal is the simplest of all operations.

The following cases illustrate my meaning:

CASE I. Many years ago a gentleman was lithotomized by Dr. Brainard, who removed from his bladder about twenty small stones. He remained well for a series of years, when he came to me with two small calculi, which I removed by crushing, after which he remained free from stone for the rest of his life.

Now some might suppose that Dr. Brainard overlooked the two stones, which I afterward found. I think this is not so, from the fact that an interval of years elapsed between the discovery of

Chicago Medical Society, Feb. 13th, 1893.

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the twenty and the two, and when found, the latter were too small to be of the same age as the former. It is more rational to believe that an attack of temporary renal disease produced the first crop of calculi, and that after they were removed no more occurred until a new renal attack of less severity produced the second.

CASE II. A surgeon of excellent skill came to me in perplexity. He has distinctly diagnosed a stone by a searcher, and had cut for it, and was then unable to find it. I went with him and we searched the bladder again through the incision. At first we could find nothing, but by bending a britannia metal sound to an abrupt curve with a somewhat long beak, I found the object lying hidden behind an enlargement of the prostate. The doctor's forceps were of the straight variety, and were unable to reach over behind the prostatic prominence. By taking a curved pair, I easily extracted the stone.

Four months later the patient came to me suffering his old symptoms. I introduced the large tube of a Bigelow's evacuator, and without any cutting or crushing pumped out eight small stones of a very smooth and globular form. None were more than a 3-16 of an inch in diameter. The patient seemed perfectly cured. After some months more he again appeared with a recurrence of his symptoms. Again without any cutting or crushing I introduced the evacuator and pumped out about half a dozen small round stones.

Again he was apparently cured, but after perhaps eight months, he once more relapsed, and was cured as usual by pumping alone. This was the end of the trouble. He remained cured several years and at last died of pneumonia.

Now I do not think all those little calculi were in the bladder when the first surgeon lithotomized him, nor that they were overlooked by him.

It seems fairly certain that the kidney was producing them from time to time, but that the diseased process came to an end in about a year and a half. It is plain that in this case it was far safer and better to simply wash them out when small, than to perform lithotomy or litholapaxy on him four or five times over.

CASE III. A patient came to me many years ago with a severe case of calculus. I performed lithotomy and took out the nine stones which you here see. Six of these are large and fit accurately to each other with facets of apposition. The six are all of about the same size, as if they had descended into the bladder at about the same period. The remaining three are less than one-

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tenth of the size of the large ones, but about the same sie amongz themselves. I infer that the six large ones are of about the same age, and were produced by the kidney at about the same time during a temporary attack of disease. It seems that the production of stones then ceased for a good while, but at last the kidney disease recurred sufficiently to produce the three small ones. After this no more were formed, so far as I was able to ascertain.

CASE IV. A wealthy gentleman of advanced age had paralysis of the bladder, obliging him to use a catheter. After a time he began to draw out an occasional small stone by its being entangled in the eye of the catheter. For some time he relieved himself of the calculi in that way. Finally the stones ceased to be produced, and he remained free from them a long time, but at length a single one was formed and became too large to be extracted in the usual way. Being old and of enfeebled will power, he could never summon up courage to permit me to etherize him and remove it by pumping or crushing. He then heard of a quack in New York, who promised to dissolve it out by giving medicines internally, so he went to him and died in his hands.

In this case a prompt extraction with the pump, without any cutting or crushing would probably have ended his whole trouble.

CASE V. A gentleman aged about sixty years began to have frequent attacks of renal colic, sometimes in one kidney and sometimes in the other, showing that both organs were diseased. At the same time he began to pass with his urine small globular calculi, nearly uniform in size and about an eighth of an inch in diameter. In the course of a year he passed perhaps fifty of them, or at any rate a large number. He kept no accurate account. At the end of a year a large number had been retained, in addition to those he passed, and obstructed the micturition to an alarming degree and occasioned frightful distress.

I introduced a large evacuator and pumped out thirty-six small smooth stones. One remained, however, too large to pass the tube. I introduced a lithotrite and picking it up drew it out in the jaws of the instrument without crushing it. It was scarcely a quarter of an inch in diameter. A prolonged search showed no more calculi, and the patient was returned to bed. His recovery was remarkably rapid. In two months he went to Lake Superior on a deer hunt. After six months a diligent search showed us no more stones. It seems that the production of the calculi has ceased at least for the present. I have advised the family physician to keep close watch and pump out promptly any calculi that may appear,

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and I believe that he will thus be effectually kept out of trouble, and at last permanently cured.

I also desire to present a

NEW CLAMP FOR BONY UNION OF FRACTURED PATELLA.

Early in this century, Malgaigne endeavored to secure bony union in fractures of the patella by two pairs of hooks inserted through the skin into the upper and lower edges of the bone, and drawing the fragments together by a screw passing through the yokes which coupled the pairs of hooks.

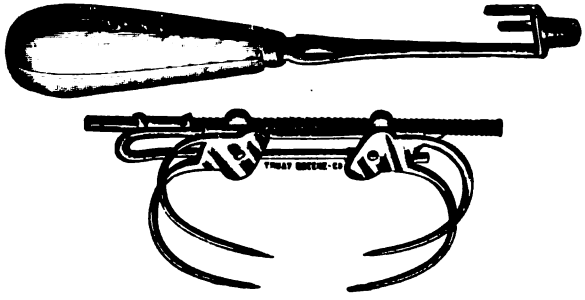

Fig. 1. Improved Form of Malgaigne's Hooks.

Malgaigne made his invention too early. Not having the advantage of systematic antisepsis, the punctures admitted septic germs, which in some cases gained access to the joint, and caused fatal suppurative infection. Owing to these bad results, the method fell into disuse.

Now that antiseptic methods enable us to operate about the knee with less danger, attention is again turned to the production of bony union of the patella with considerable success. Silver wire and silk have been variously employed as the binding material to secure apposition of the fragments.

During last year Lucas, Championière, Pilcher, and Lutz, reported twenty-nine successful cases, and many other writers have written encouraging papers on the subject.

On the other hand Fowler reported fourteen cases operated on, of which six had extensive suppuration of the joint and of the thigh, and one died of carbolic acid poisoning.

These and other failures have caused some surgeons to turn their attention again to Malgaigne's method.

I show you here an improved form of his hooks recently brought from Paris. See Fig. 1.

On reflection it has seemed to me that I could accomplish the

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end better by a different apparatus, and I have accordingly had one constructed, and present it before you. As I have only just received it from the instrument makers, I have not yet applied it in practice. See Fig. 2.

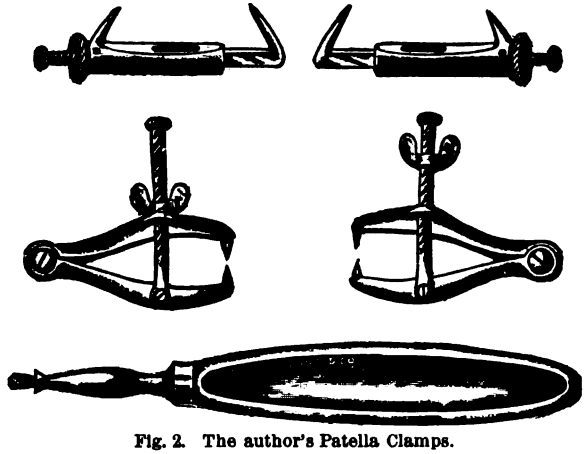

Fig. 2. The author's Patella Clamps.

It consists of two pairs of clamps, each pair being jointed together like a very small carpenter's compass, each arm being about an inch and a half long, and terminating in a sharp point, directed so that when the arms are closed the points meet at an angle of ninety degrees in a plane at right angles to the line of the arms. The blades, or arms, are approximated by screws carrying thumb-nuts. To apply them four punctures are made in the skin over the patella, after full disinfection of everything. A small bone drill, which you here see, has a shoulder near the point so as to prevent the possibility of passing completely through the bone. Four shallow pits are drilled into the surface of the patella, sloping toward the line of fracture. The points of the compasses are inserted into the pits, and the fragments drawn firmly together by turning the thumb nuts. The patella is thus firmly clamped and the compasses lie sloping away from the patella on each side, resting lightly on the adjacent skin. In this position they leave the front clear for antiseptic dressings and for inspection. It is a material advantage not to have the instrument standing up prominently in front of the joint like that of Malgaigne. It will be remembered of course that the punctures must be kept thoroughly aseptic.

6 SIXTEENTH STREET.

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MEDIASTINAL ABSCESS AND TUBERCULAR BRONCHIAL GLANDS—REPORT OF CASES—EXHIBITION OF SPECIMENS.

BY CHAS. WARRINGTON EARLE, M. D.

Mr. J. H., aged 55, American, married, family and previous history good.

I have been the physician in this gentleman's family for nearly twenty-two years and during all that time he has not been sick so as to be confined to his bed a single day. He was a slight but wiry man, one who was capable of doing an immense amount of work, perfectly temperate in his habits and with no constitutional taint. During the last year of his life he had a slight cough which gave him but little inconvenience and he continued to transact business until a short time before his death. I am indebted to my associate, Dr. Weaver, for the notes on the case, for the very minute examination made before death, and for the report of the autopsy.

The history of the disease which resulted in his death is as follows: About six weeks before death he had symptoms of an ordinary cold which manifested itself in a paroxysmal cough. He had no chills and but slight increase in temperature; there was, however, more than the usual exhaustion.

He consulted me November 21st, 1890 for the symptoms described above. During the following week his temperature was from one to two degrees above normal during the evening and his emaciation became more marked. He also complained of a sore throat. His expectoration during the early part of his sickness was scanty, but at the fourth week the cough became more troublesome and the expectoration abundant and extremly fetid. There was at this time a very disagreeable odor to his breath, the cough was more distressing and sometimes a small and sometimes a large amount of offensive sputum was discharged. At this time a physical examination revealed the following: The patient is markedly emaciated. Skin has a dusky hue. Tongue coated and pale. Throat negative. First sound of heart is weak, otherwise negative. Temperature, A. M. 101 degrees F.; P. M. 102 degrees F.

Lungs: left, negative; right, about the middle of the interscapular region is an area extending about five inches vertically over which marked dullness is obtained on percussion. The dull-

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ness gradually gives place to resonance as you pass in any direction. Especially over the periphery of the dull area signs of partial pulmonary consolidation are obtained on auscultation.

The rest of thc chest, including the front, gives no abnormal signs on physical examination.

The sputum, obtained at one of the paroxysms after standing is as follows: On the top is a frothy layer, beneath this an opaque layer of mucus, and at the bottom a thick, yellowish-green layer made up, in part, of small separate masses. It has a very offensive odor. Microscopical examination fails to demonstrate the presence of any elastic fibers or tubercle bacilli. Abundant streptococci and a few baccilli are found when Gram's stain is employed.

December 7. To-day the patient expectorated about one and one-half pints of almost pure pus, having a very offensive odor which permeates the whole house.

December 13. Physical examination at this time gave the following information: Over the right upper chest there is everywhere slight dullness, but it is more marked posteriorly. The expiratory sound is prolonged and raised in pitch, and vocal sounds are slightly increased. A few moist rales are also heard. Posteriorly is an area, lying in the interscapular, infraspinous and infrascapular regions, about five inches in diameter, over the central portion of which is obtained almost flatness, and over the periphery only dullness. Over the flat area auscultation reveals sounds suggesting the presence of a cavity. The diagnosis at this time was either pulmonary abscess or bronchiectasis. There is perhaps a question whether we discussed the last named disease. It certainly suggested itself to me. About this time Dr. E. F. Ingals saw the case, and a short time after Dr. Christian Fenger. Both concurred in the diagnosis of pulmonary abscess, but all efforts at locating the abscess with a view to operation failed.

At one time after an exploration by the use of a long needle the patient passed into a fainting spell from which, however, he soon revived. On December 15 he passed into collapse and died.

For one week before the patient's death no attempt had been made to examine the chest, as the patient was very weak and desired to remain undisturbed. The specimen which I pass around will be seen to consist of the trachea, with the bronchi from which an opening into an abscess cavity is noticed. The right pleura contained one quart of milky fluid with an offensive odor, but not so penetrating as that arising from the lung tissue and sputa.

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There was a deposit of soft, dirty yellow lymph over the parietal and visceral pleura. The lung lay compressed and airless against the spinal column, and was adherent behind over the third, fourth and fifth ribs from the spine outward for five inches. There were firm adhesions at one place between the lower lobe and diaphragm. Lying below the bifurcation of the trachea was a cavity, with a blackish-gray, ragged lining. This cavity communicated below with the general pleural cavity of the right side. From above a perforation, about the size of a crow quill, in the anterior and lower wall of the right bronchus just beyond the bifurcation of the trachea, opened into the cavity just described. The right lung was airless, dirty grayish red on section, and very offensive to the smell. The mucous membrane in the lower part of the trachea and the right bronchial tube was reddened, thickened, and rough on its surface. Some swollen dark bronchial and mediastinal glands were found, but none of them showed evidence of caseation or suppuration.

The left pleura and lung were about normal, except for some inflammatory changes in the main bronchus, which were much less marked than on the right side.

In the other organs, aside from cloudy swelling in the kidneys and fatty degeneration in the liver, nothing abnormal was found. The esophagus and gastro-intestinal tract, as also the heart and large blood vessels, presented no gross pathological lesions. There was no necrosis of the ribs or vertebrae.

The succession of pathological events and clinical symptoms caused by them must have been something like this. A primary tubercular disease of the lymph glands at the tracheal bifurcation leading to the abscess formation; or, what seems more probable, the infection of the lymph glands in this location by micro-organisms which entered through the inflamed mucous membrane at the time the patient suffered from his initial cold. The suppurative inflammation soon led to abscess formation. The early necrosis of the right bronchus and the escape of the pus did not allow any physical signs or pressure symptoms to develop which would suggest the exact location of the primary disease.

Extension of the inflammatory process along the bronchial tubes and through the peribronchial tissues led to the development of a broncho-pneumonia, and consequent signs of the same.

The physical signs indicating a cavity may be explained by the opening of a large bronchial tube into the abscess cavity, and the solidified lung at the posterior part of the thorax coming in con-

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tact with the chest wall. A parallel case is recorded by Eichhorst[1] in which a diagnosis of an abscess of the right middle lobe was made, while the autopsy revealed a pneumonia of the middle right lobe, and a cavity, caused by necrosis of a gland, opening into the right bronchus. The abscess probably opened into the pleura at the time of the last examination on the 21st, when the patient experienced a fainting spell, for from then until the day before death, no pus was expectorated. The purulent secretion had evidently been passing into the pleura until a sufficient level had been reached by the fluid, when a portion of it was expelled through the opening in the bronchial tube. The last expectorated material corresponded exactly to the fluid found post-mortem in the pleura. The location of the abscess cavity immediately in front of the spinal column explains why it could not be reached by the exploratory needle.

The first cause of this difficulty which may be noticed is trauma and this produces its abscess in the anterior mediastinum. The reason for this is easily recognizable since we find that most of the cases were sequelae of injuries or surgical wounds of the chest wall in front, the tissues of the neck, or of the trachea. Besides trauma, mediastinal suppuration may follow certain infective diseases, or measles, small-pox, pyemia, etc., constituting metastatic mediastinitis.

"Catching cold" is given as a cause, and acts indirectly as a depressing influence over the vitality of the tissues in general; but more directly as furnishing an inflamed respiratory mucous membrane through which atrium the infection enters and so becomes located in the lymph glands. Tubercular disease of the glands about the bifurcation of the treachea and larger bronchi may lead to necrosis and abscess formation.

Extention of inflammatory processes by direct continuity from the surrounding tissues and organs may cause suppurative mediastinitis. Among such are necrosis of the vertebrae, sternum and ribs. Inflammation of the plurae and pericardium may extend directly to the mediastinal connective tissue, or purulent collections in one of them may rupture into these spaces. Eichhorst speaks of a case in which a tubercular pulmonary cavity opened into the anterior mediastinum, causing purulent inflammation there. Purulent cellections in the neck, having their origin in vertebral cavities, suppurating lymph glands, or septic inflammation of the cellular tissues, may be directed downward by the cervical fascia, and

[1] Spec. Pathol. and Ther.

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so reach the mediastinal tissues, and set up a suppurative process.

Perforation of a diverticulum or carcinoma of the esophagus leads to the production of a mediastinal inflammation and the resulting abscess is apt to have fetid contents.

The escape of the purulent collection may take place by several different passages. It may reach the surface of the chest in front, and open through a perforation of the skin, having passed through the sterum, or, as is more common, between the costal cartilages, especially through the second inter-space. The pus may dissect very extensively, coming first to the surface in the inguinal or lumbar region. Quite commonly the pus is evacuated into some of the neighboring organs, including the plurae, pericardium, esophagus, bronchial tubes, and lungs, in any one of which a secondary inflammation is set up. If one of the large blood vessels is eroded, fatal hemorrhage follows. The symptoms are general and local. The general symptoms are the same as those caused by a suppurative process in any part of the body, as fever, chills, anorexia, etc.

In the formation of an acute abscess, before a collection of pus has taken place sufficient to cause pressure, the local symptoms consist of pain and perhaps tenderness on pressure or percussion behind the sternum or in the back between the scapulae; a feeling of pressure in the thorax; a dry irritating cough, or there may be some mucous or muco-purulent expectoration, which may even be blood-stained; difficult or anxious respiration; and at times some trouble in deglutition. Some redness of the skin over the sternum is occasionally noted. If, now, the process advances and an abscess forms, symptoms caused by pressure upon important structures or their involvement in the inflammatory process become prominent. The pressure symptoms, however, are not nearly so marked as they are in connection with tumors and large, solid lymph glands, owing to the more elastic character of the swelling. By direct pressure and twisting of the large veins their caliber is lessened, and a resulting dilatation of the veins in a peripheral direction is followed by localized cyanosis and edema.

Pressure on the aorta or pulmonary arteries causes systolic murmurs in the vessels, and a feeling of pulsation. Symptoms referable to pressure on the trachea or bronchi may occur, and dysphagia results from pressure on the esophagus. Pressure on the sympathetic nerves leads to inequality of the pupils; on the vagi to spasmodic cough, emesis, tachycardia; on the recurrent nerves, to paresis or paralysis of the vocal cords. If perforation

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occurs the symptoms of the secondary condition develop. In case of rupture into the air passages suffocation may result from the entrance of a large quantity of pus, by plugging of the passages by a sequestrum of tissue, or by a septic inflammation which causes extreme swelling of the mucous membrane.

The physical signs of a mediastinal abscess would be those of a solid growth, consisting of flatness over the sternum and to the sides of it, especially at its upper part, and in a corresponding region posteriorly. There may be a sensation of pulsation on palpation. After rupture into the air passages, signs of a cavity might be obtained. If the neighboring lung were involved, signs of pneumonia would be present, as also of pleuritis or pericarditis as the process extended to the pleura or pericardium. As an abscess approached the surface, the usual signs of redness, edema, and fluctuation would be seen.

Mediastinal abscess must be differentiated from aneurism and solid growths or swellings. The distinctive signs of aneurism; bruit, expansile pulsation, diastolic shock and tracheal tugging are absent. As an abscess approaches the surface pulsation may be obtained over it. The lessening of dullness over the sternum as the patient assumes the dorsal position may occur in case of a well-formed abscess, and would always call attention to the presence of a fluid which varied in its position with that of the patient. The presence of a purulent collection, aside from this, could only be differentiated from other swellings or tumors by the septic symptoms, and by the use of the exploratory needle. The location of the trouble in the anterior or posterior space would be determined almost entirely from the physical signs and exact pressure symptoms. Pain may be felt in the line of the intercostal nerves, or in front of the sternum, while it is caused by pressure on the nerve roots behind.

Among the cases tabulated by Hare, in which the final result of the disease, and the exact location of the abscess were determined, the mortality was over 50 per cent. In the cases involving the anterior mediastinal space over one-half recovered, thirty-five out of sixty-seven, while the cases in which the abscess was located in the middle and posterior, or posterior spaces, were almost uniformly fatal, as were also those involving all the spaces. The difference in the mortality between the cases in which the abscess is located in the anterior and posterior spaces depends mainly on two factors; one, the comparatively easy escape of pus at the surface when located in front; the other, the large propor-

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tion of those involving the posterior space being almost all tubercular in origin and occurring in "scrofulous subjects." Of the fatal cases involving the anterior space, a large part were also tubercular. So, while the prognosis is always grave, it varies somewhat with the anatomical location of the suppuration, and especially with the presence or absence of tuberculosis as the primary cause.

The treatment here, as every where else in the case of purulent accumulations, is surgical, aside from symptomatic measures to relieve the patient before or during the carrying out of the line of procedure. The details of the surgical measures will not here be discussed.

The second case is one of acute tuberculosis in an infant with enlarged bronchial glands.

September 13, 1892, I was requested to see a colored child living in this city.

The following history was elicited during the two days of attendance. Male, aged ten months. Family history: father had some lung difficulty which was not known at our first visit. The child had been remarkably healthy up to five or six weeks before. At that time he began having some fever at night and was restless. In about one week from the commencement of the sickness he began to cough, which has continued to the present time. The cough was described as "dry in spells" and was thought to be "whooping cough." He would be slightly cyanotic and occasionally vomited during the paroxysm. He never had the characteristic whoop. Bowels have been constipated, and abdomen has been rather large. The family claim that the child has had "inward spasms," which are described by them as a sort of sinking spells, but there have been no real convulsions. There is a tendency to hold the neck stiff. Pupils equal, rather small and react to light; nurses, but vomits often on coughing.

Abdomen full and tympanitic except an area of increased resistence and dullness extending from right costal arch downward for two inches. Resonance over lungs not good. Auscultation negative.

The following day the child nursed, but swallowed with difficulty, was restless, temperature 104° in the groin. Seems to use one arm less than the other. Paroxysmal cough. No more emesis.

Early the following morning it died, after gradually passing into comatose condition. Had no spasm. Temperature kept high

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and pulse was 160 the night before death. Bowels have been quite natural throughout sickness.

Autopsy by Dr. Weaver ten hours after death. Heart: some ecchymoses in pericardium, more near base, otherwise negative. Lungs: both covered with small, yellowish nodules of size of pinhead scattered uniformly over cut and serous surface. Upper right lobe shows subserous emphysema. No pleural adhesions. Mediastium, etc: Tracheal mucous membrane reddened and covered with tenacious mucus, and at the lower end of trachea and in the primary bronchi, there are yellow spots and larger irregular areas suggesting tubercular infiltration.

In the bifurcation of the trachea two caseous bronchial lymph glands as large as English walnuts are found. On section, one is of greenish yellow color, shows small cavities scattered throughout which contain opaque fluid. The other contains a central yellow mass as large as a hickorynut, with central cavity caused by breaking down of caseous material. About this is a thick layer of reddish gray, mucoid tissue, looking like tubercular granulation tissue. Spleen thickly studded with fine yellowish masses of size of a pinhead, both in capsule and pulp. Size is that of organ in adult. Liver: mottled, pale yellow and red. Extends two inches below costal arch. Kidneys: right, very full of blood; left: pale, in some places markings are almost lost. In a few isolated places yellowish areas looking like tubercles were seen, but very few. Serous surface of intestines was clear and contained no tubercles. Head was not examined.

Further examination of mediastinal contents. There can be no point found at which the cheesy glands communicate with the large blood vessels.

History of family.—The father of the child was sick at this time with pulmonary tuberculosis, the process of destruction being very extensive and abundant tubercle bacilli being found in the sputa. The primary glandular disease was probably brought about by bacilli in the dust of the room in which the family, including the father lived. This was inspired by the child, and locating upon an irritated or susceptible bronchial mucous membrane they entered at once to the gland from where general dissemination took place.

This enlargement of the glands which I exhibit will explain the paroxysmal cough. Of course the development of tubercular masses in so many places explains the fever, and, as I believe, the development of tubercular particles along the base of the brain

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explains the other symptoms which I have noticed in tubercular meningitis in children. When children are under the influence of some disease the diagnosis of which is hard to make out at the time, the rigidity of the muscles of the neck or arm has led me in two or three cases to look very carefully into the possible cause of the disease, and I have come to believe that this, in some cases at least is one of the symptoms.

535 WASHINGTON BOULEVARD.

REPORT OF A CASE OF THIERSCH'S SKIN GRAFTING ON THE CONJUNCTIVA.

BY DR. F. C. HOTZ.

PROFESSOR OF OPHTHALMOLOGY, CHICAGO POLICLINIC.

Extensive loss of the conjunctiva often produces conditions which become embarrassing, and sometimes even dangerous to the eye, and we are therefore called upon frequently to relieve patients from this condition by operation. The surgeon under these circumstances is placed in a difficult position because the naturally limited area of the conjunctiva reduced by the destruction, makes it seldom possible to remedy the difficulty by local transplantation of conjunctival tissue. So we have to look for material from other sources. If, for instance, the conjunctiva of the lower lid had been destroyed, to reëstablish the palpebral surface resource has been had to transplantation of skin flaps from the upper or lower lids, this being the thinnest available skin. These transplantations are not, however, very satisfactory, for although the skin is thin it is too thick and clumsy for the lid surface, which ought to be covered with a more delicate and more elastic material. Of course this skin would not answer for repairing any defect of the ocular conjunctiva; therefore implantations of mucous membrane have been tried, such as the conjunctiva of dogs and rabbits. Others have tried the engrafting of a piece of the mucous membrane of the mouth.

These operations are very troublesome, tedious, and as a rule unsatisfactory in their results. I have heard dissatisfaction expressed by many surgeons, and I admit that my own experience fully coincides with theirs. I have transplanted the mucous membrane of rabbits and dogs and have succeeded after tedious, time-taking manipulations, in placing the piece smoothly on the eyeball or the lid and stitching it on so that it looked very nice immedi-

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ately after the operation, but the final result never rewarded me for my trouble.

The method of grafting suggested by Prof. Thiersch seems to help us out of our difficulty in many cases. These grafts, as you know, are cut by passing a razor just below the cuticle, cutting through the tops of the papillae; they are truly skin-shavings, are almost as thin and pliable as mucous membrane, but being taken from a firmer texture they have a greater resistance and greater vitality than mucous membrane. So it has occurred to me and others that such skin shavings would answer the purpose of repairing and patching up defects on the inner surface of the lids or even on the eyeball, and they have been used for various conditions.

To-night I wish to show you a case in which a Thiersch skin graft has been implanted upon the conjunctival surface of the lower lid for the particular purpose of making it possible for the patient to wear an artificial eye. He lost his eye about sixteen years ago by the explosion of a pop bottle. Glass splinters had cut the eye and had also lacerated the conjunctiva considerably. The eye was enucleated nine days after the injury, and several months after healing the surgeon put in a glass eye. There seems to have been some difficulty, for the patient informed me that only the smallest kind of an eye could be inserted and that it had to be held in by a bandage worn for several days, showing that there was a poor socket for the retention of the glass eye. By forcing the eye in with a bandage and making it dig a groove in the lower lid a little larger eye could then be used and the patient had been wearing this, but never with comfort. Last year, however, it became impossible for him to wear it at all; it would not stay in.

When I examined the condition I found that the difficulty was explained by the presence of a very thick, callous, cicatricial band stretching from the upper to the lower lid near the external canthus, which prevented the edge of the glass eye from slipping behind the external commissure. This scar tissue also extended forward to about the middle of the lower lid making it so firm and unyielding that when the eye was put in, aside from not being able to slip behind the canthus, the lower edge of the eye could not slide down behind the lower lid.

In October, I performed an operation to remove this obstruction. I cut out the dense part of the scar first so as to liberate the cartilage of the upper lid and allow that to go back into its place, then I dissected out in the shape of a tongue like flap the mass of scar tissue from the lower lid; I did not cut this flap off, but turned

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it up to fill the wound on the surface of the upper lid to which it was fastened by three sutures. Now the defect on the surface of the lower lid had to be covered with some other material. To do this I took a skin shaving from the patient's arm, and keeping it floating in a solution of chloride of sodium, one-half per cent, transported it on the razor right to the temporal edge of the defect and dropped it there on the wound; and by making the solution flow off slowly from the razor, while the blade was moving from the temporal side toward the center of the lid I succeeded in spreading the shaving over the whole defect, and afterward I only had to smooth out its edges a little. The graft covered the defect, the edges overlapping a little, and the question now was how to retain it in place, because if I allowed the lids to close it was likely the flap would wrinkle and become displaced. So I took a small pledget of absorbent cotton wrung out of the salt solution and spread it carefully over the graft; upon this more cotton pledgets treated in the same way were placed to fill up the conjunctival pocket so that when the lids were closed over this packing it exerted a continuous mild pressure upon the graft to keep it in place. Then a bandage was applied and left on for two days; when it was removed I found the graft nicely in place and adherent; it had healed in, and the lower lid became pliable and elastic. A glass eye was not put in until a few weeks ago, and the one he had been wearing since is now moving around in the socket so easily that I think it is possible for him to wear a larger one.

Four years ago I used a Thiersch graft also for the purpose of improving the socket for a glass eye; but the difficulty was a different one; it was a uniform shrinkage of the whole socket; there was no depth to it, because the enucleation which had been performed several years previously had heen followed by severe inflammation. The patient requested me to do something that would make it possible for her to wear a glass eye. I found the bottom of the conjunctiva pocket one mass of rigid cicatricial tissue, the cicatricial bands stretching out in all directions making such a shallow firm membrane that the glass eye could not be pressed back into the socket far enough so that the lids could close over it. Of course there was nothing at all in the cavity to utilize; and that was the case where I first conceived the idea of trying Thiersch's grafts for the purpose of enlarging this pocket. I cut the cicatricial mass right and left, up and down, so that the conjunctiva could retract in all directions leaving in the center a large defect. I took a large graft, almost an inch square, from the arm

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and put it in the depth of this socket. It was a very difficult manipulation to spread it out smoothly in the cavity, but I succeeded, and to hold it there I packed the whole cavity with pledgets of cotton until it was full up to the lids, drew the lids over the packing and secured the whole with a bandage. The graft took, and although it shrank to a certain extent it still left the socket large enough so that a small glass eye could be put in. I was anxious to follow up the case and if it should shrink further do more grafting, but I lost sight of the patient.

Other conditions in which Thiersch's grafts are very useful are adhesions of the lid with the eyeball, so-called symblepharon; conditions which are produced after extensive destruction of the palpebral and the ocular conjunctiva by lime or hot metal; and conditions which result from excessive shrinkage of the conjunctiva in the course of trachoma. When the lower lid becomes agglutinated with the eyeball almost to the border of the cornea, there is a condition which of course impedes the freedom of motion of the eyeball; there is no possibility for the eye to move in any direction without dragging on the lid, and the lid cannot be drawn down without pulling the eyeball with it. This embarrassment in the movements of the eyeball is a source of constant irritation, therefore these eyes are subject very frequently to recurrent inflammations. If we separate the lid, dissecting it off from the eyeball, we must put something on the raw surfaces, either of the eyeball or the lid, to prevent reattachment, and in such cases we can use these shavings very nicely for both surfaces; dissect the lid off from the eye so that the lid can be freely everted; in the place of the palpebral conjunctiva you then have a raw surface which extends from the lid border backward to the eyeball; cover this surface with a graft, and after this graft is put on and spread out smoothly, allow the lid to return to its place, and the eyeball will hold the graft in position.

In this way I have treated a few cases of excessive shrinkage of the conjunctiva produced in the course of trachoma to restore to the eyeball its free mobility. Under normal conditions the ocular and palpebral conjunctiva are connected by the so-called retrotarsal fold which is reflected from the lid to the eyeball so loosely that when the eyeball moves up or down, that fold stretches out and allows the motion to be made without pulling the lid upward or downward. This fold frequently shrinks in the course of trachoma until there is only a very shallow retrotarsal space left. When you pull the lid down in that condition, the conjunctiva

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stretches in longitudinal folds from the cornea to the border of the lid, showing the shortening of the conjunctiva and the impediment to the freedom of motions.

I have performed operations similar to these for symblepharon as the result of traumatism. I made the incision close to the lid border, allowing all the remaining conjunctiva to cover the surface of the eyeball and substituting Thiersch's shavings for the lid surface. If the defect is very large it is sometimes necessary also to implant a graft on the eyeball as a substitute for the lost ocular conjunctiva; and for this purpose Thiersch's grafts may also be used.

Another condition in which I have used Thiersch's grafts on the eyeball is a large pterygium, a few cases of which I presented before the Opthalmological Section at the Detroit meeting last year. Ordinary cases of pterygium do not require a very difficult operation, and can be relieved by ordinary transplantation. The pterygium is separated from the eye in this fashion; it is dissected off carefully from the cornea back to the sclera, and then allowed to retract toward the caruncle; this leaves a defect in the ocular conjunctiva near the corneal margin. If it does not occupy more than one-eighth to one-sixth of the circumference of the cornea, we can close that defect up easily by bringing the ocular conjunctiva together, liberating it from its attachment with the sclero corneal border when it becomes mobile enough so that we can draw it together and unite it in a linear wound by a few sutures. But if the pterygium is very broad so that the defect reaches above and below almost to the vertical meridian of the cornea, it is next to impossible to close it up by moving and stretching the conjunctiva; the tension is so great that the stitches will cut through in twenty-four hours.

These are the cases in which I thought grafts might be of great service. At the first trial I cut the graft a little larger than the defect for the purpose of tucking the edges of the graft under the ocular conjunctiva, because I thought if the graft extended under the conjunctiva, the overlapping conjunctiva would secure it better and prevent its being displaced. My plan was a good one, but the result showed it did not work. The next day I found that the graft had been shifted toward the cornea just enough to bring its edges out from under the conjunctiva, but fortunately it had remained otherwise in perfect contact with the sclera; I simply trimmed it back from the cornea and it healed in, and after shrinkage had taken place there was left quite a large patch of

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skin surface which looked white and smooth. It was a little thicker than the surrounding ocular conjunctiva, but from a short distance this was hardly noticeable. Therefore I think these grafts, from a cosmetic point of view, will not be objectionable for use on the eyeball. In several other cases I cut the grafts a little shorter than the defect, so as to allow the tissue to drop in and make sure that the graft would not be crowded upon the cornea.

VENETIAN BUILDING.

A TOPICAL TREATMENT OF BRONCHITIS.

BY EDWIN J. KUH, M. D.

During the last two years I have employed a method in the treatment of acute and chronic bronchitis, which both in point of rationality and success seem superior to all other methods known to me.

The first suggestion was received through an article by Wm. Murrell, published in Wood's *Medical & Surgical Monographs* in August, 1890. As early as 1874 Murrell wrote an article in the *Lancet* on "Ipecacuanha Spray in Winter Cough and Bronchitic Asthma." This paper was followed by various others describing the successful use of this treatment both in England and America. Intermediate to these articles Murrell published similar ones in the same line of observation. His method can be briefly described as follows: Ipecacaunha wine was diluted with twice its bulk of water; the inhalations were made either by means of a steam spray or a double bulb atomizer; the latter was principally used. Patients were made to inhale for about one-half hour and as much as four drachms were used. As a rule 100-260 compressions of the hand bulb were required, 100 squeezes being equivalent to about one drachm of the fluid. It immediately becomes apparent that this method is too awkward for extended use, although Mr. Murrel publishes experiences with over 200 patients. The ipecacuanha spray, as he himself states, occasionally nauseates and augments the dyspnœ in bronchitic asthma.

Upon prolonged trial I abandoned both the alcoholic and watery sprays and used only oily menstrua. Alcohol and water choke off the breath in the method which I am about to describe.

Read before the Chicago Medical Society, February 13th, 1893.

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I apply direct inhalation from what is known as Davidson's atomizer No. 65, which is connected with an air tank of about thirty pounds pressure. This atomizer emits a very fine and copious spray. The tip is introduced into the mouth in the same manner as in laryngeal and tracheal treatment. The patient is instructed to make as prolonged an expiration as possible, to pause for a moment, then to begin inhaling gently and slowly and then more rapidly and deeply; during the inspiration the spray is started slowly and then with more or less force, the patient thereby drawing it into his lungs. The successful result of this method depends upon the skill with which patients inhale. Not all people are able to inhale correctly without more or less practice. The spray must be forced from the atomizer and actively drawn down into the chest; a mere patency of the glottis is entirely insufficient; the method is a failure if this is not insisted upon. In correct inhalation you can see the spray drawn into the chest, just as a strong draught will draw smoke into a chimney. If you see vapor suspended in the mouth and throat, the inhalation is imperfect. The spray evidently forms a moist coating in the tubes and but a very small quantity is again exhaled. Severe fits of coughing will expel small additional clouds of vapor, but almost all of it remains in the chest. This method of inhaling must be distinctly separated from the well-known ones from steam or vapor atomizers, of which latter most throat specialists are in possession in one form or another. The usual steam atomizers and vaporizers in use have a far more limited efficacy because they are milder applications.

The composition of the spray to be used can, of course, be varied according to the exigencies of the case or the preference of the physician. No spray, I believe, will be very effective without the presence of menthol. The formula which seems to have been most useful to me consists of, menthol one per cent to two per cent, creosote 1 per cent, camphor one-half per cent to one per cent, oil eucalypt. two per cent, oil pine needles two per cent in albolene or benzoinol. The average quantity to be inhaled is two drachms. Patients then begin to gag and the stomach revolts against more. These two drachms are in well-trained patients, absorbed in about 8-12 inspirations.

The sensation of the spray extends over almost the entire anterior portion of the chest. It is described as either cooling or warming. Many patients feel the sensation extend to the diaphragmatic line. It causes some hot smarting in and above the larynx. I have never seen it cause laryngeal spasm when deeply

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inhaled. It does not seem at all unreasonable to assume that so vigorous a treatment, extending probably into finest ramifications of the air tract, and in a mild sense flooding them, might possibly injure. But this has never yet in my experience in hundreds of treatments, been the case. It is possible to train intelligent children in this treatment. My youngest patient was three and and a half years old.

The results are most striking in the severest cases of chronic bronchitis; the severer the case the more palpable the result. I refer principally to those cases with tenacious, thick, yellowish or greenish bronchial discharge with or without dyspnea. It is astonishing with what almost instantaneous success practically incurable patients with an old bronchitis complicated with emphysema, an anxious, sallow face and wheezy respiration will improve. The inhalation in these cases is generally, especially in the beginning of the treatment, followed by a succession of explosive coughs and a mouthful of heretofore unremovable phlegm; the spray fairly scoops out the secretions in these cases. These patients who found it impossible to rest in bed will, within a week, have a comparatively peaceful sleep. From week to week a greater permeability of the smaller tubes can be noted by auscultation. The phlegm gradually loses its purulent character and becomes mucoid; it also decreases so much in quantity that even during the inhalation very little, or none, can be raised.

In the few cases of bronchitis complicating chronic nephritis and diabetes, under my observation the results were equally gratifying. We must consider the circulatory and other changes in these diseases as predisposing to bronchitic infections.

The maximum results in chronic bronchitis are generally obtained within the first two weeks of treatment; after that the amelioration goes at a slower pace and finally reaches its maximum. The only flaw which I have found in the treatment is that it will not cure a large proportion of cases of chronic bronchitis completely; there frequently remains an occasional cough, with or without a slight nonpurulent discharge from the tubes. I have not yet found a method of making the cure in all successful cases complete. I should be grateful for any suggestion in this direction. The explanation why a perfect, ideal cure is exceptional is from a pathological standpoint easy to explain. The hypertrophied bronchial mucous membrane will naturally remain hypertrophied and manifest its condition by some sensitiveness and hypersecretion. My most unsuccessful cases of

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chronic bronchitis are those which are classified as catarrhe sec; on auscultation one hears, or does not hear, an occasional piping rale and harsh breathing, and the patient states that he raises no phlegm. These cases of chronic, dry, hacking, bronchial cough, especially in older people, I have frequently found disappointing.

If an asthmatic has sufficient control over his respiration during an attack, to inhale the spray, the paroxysm can be aborted.

During the last two hay fever seasons patients have regularly come for relief of their dyspnœ, after having once tested the method. It is an excellent palliative in these cases.

I believe that the inhalation should be used in pertussis. In the light of newer research concerning the probable localization of the pertussis infection, the spray must also in this disease be forced below the trachea to be of any benefit.

In those cases of nasal asthma with persistent bronchitis, after the nasal treatment has been exhausted, it is a very useful, and frequently curative after treatment.

To those who are not discouraged with all treatments in pulmonary tuberculosis I would suggest this method for the exhibition of creosote. In a one per cent oily solution creosote is barely perceived; they could therefore use considerably stronger solutions.

In acute bronchitis without fever the effectiveness of the spray is so pronounced that those who have experience with it, resort to it at each onset of a bronchial disturbance. I am strongly tempted to the claim that it will abort acute bronchitis. But conscious of the liability to fallacious conclusions in a self-limited and naturally brief disease, I make it with all possible caution. If it does not abort every attack, it certainly alleviates all of them.

Do the chronic cases relapse? As I have been employing this treatment for only two years I cannot give a final answer. Those relapses which have come under my notice were discharged after a few treatments. In chronic cases it is best to begin with daily inhalations for a few days, then on alternate days; then at intermissions of three, four or more days; then once a week will suffice, until a maximum result has been reached. In this manner it is possible to extend a minimum amount of treatments over several months, which amount of time is required in the severer cases. I do not as a rule exhibit medicines during this treatment, as they are usually superflous. When there is any dyspnea associated with the trouble the iodide of potassium should not be dispensed with. Codeine, and the wine or syrup of tar seem to rank next in usefulness.

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I can afford to prescribe these drugs now without jeopardizing the conclusions drawn from the effectiveness of the inhalation, because, by former exclusively local treatment I have learned how much to attribute to medicinal and how much to the local treatment. I never use drugs in the beginning of the treatment, in order to get a clear result from the inhalations.

Murrel's publication of 1890 does not seem to have stimulated the profession, if I may judge by the lack of literature on the subject. I have seen no reference to anything like my modification of Murrel's treatment in the foreign and domestic journals at my command, nor do Schmidt's, Jahrbücher, or Sajous' annual refer to any such treatment.

Beverly Robinson, in his monograph on Inhalers, Inhalations, and Inhalants in the Physician's Leisure Library, describes the deep sprays with alcoholic and watery menstrua. He has justly deserted these as inefficient and advocates vapor inhalations with the globe inhaler. This method seems useful, but is far slower and weaker in its result then the method described to you.

3125 MICHIGAN AVENUE.

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THE

CHICAGO MEDICAL RECORDER.

Journal of the Chicago Medical Society.

Drs. JOHN A. ROBISON, WILLIAM T. THACKERAY, EDMUND J. DOERING
Committee on Publication.

Dr. ARCHIBALD CHURCH, Editor for the Committee.

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Society Proceedings.

THE CHICAGO MEDICAL SOCIETY.

Regular Meeting at Orpheus Hall, February 6th, 1893.

President HOTZ in the chair.

The minutes of the preceding meeting were read and approved.

The Committee on Membership reported favorably on the applications of Drs. John Flood, 297 North State Street; J. W. Scott, 2241 North Ashland Avenue; J. J. Thometz, 999 West Twelfth Street; B. L. Riese, 240 Wabash Avenue; D. S. Harvey, 227 Ninety-second Street; J. T. Binkley, Jr., 4402, Berkeley Avenue; R. D. Locke, 3000 Indiana Avenue; H. W. Cheney, St. Luke's Hospital; H. D. Peterson, St. Luke's Hospital; Anthony Reed, 2386 West Indiana Street, and E. J. Mellish, 307 Belden Avenue, and on motion the Secretary cast the ballot of the Society for their election.

Dr. F. B. ROBINSON presented the subject of "The Abdominal Brain: Its Reflex and Rhythm."

Dr. CHRISTIAN FENGER addressed the Society on the subject of "Demonstration of Specimens from Surgery of the Kidney, with Presentation of Patients." See page 155.

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On motion, the discussion was deferred to the next meeting of the Society.

There were in attendance one hundred and twenty members and visitors.

On motion, the Society adjourned.

JUNIUS C. HOAG, *Secretary.*

Special Meeting at Orpheus Hall, February 13th, 1893.

President HOTZ in the chair.

The discussion of Dr. Fenger's paper on the surgery of the kidney and ureter, read at the meeting of February 6th, was opened by

Dr. M. L. HARRIS: I do not think this excellent paper of Dr. Fenger's should go without some recognition of its merits.

The point made of the necessity of invariably examining the ureter throughout its whole extent, and of not making primary nephrectomy is a good one; it is doubtful if primary nephrectomy in hydronephrosis or pyonephritis is ever justifiable. This is certainly an advance, because only recently Schede has said that in his opinion the only rational treatment for pyonephritis is nephrectomy, and that he considers the indication as strong as in malignant tumors. This certainly is a mistake. To-day we must incline to more conservative surgery of the kidney. In hydronephrosis and pyonephritis, we find in the majority of cases interference with the ureter. This is shown by the large percentage of permanent fistulae which follow operations on the kidney; in hydronephrosis 66.6 per cent of the cases operated upon by nephrotomy result in permanent fistula; in pyonephritis 45 per cent, which is due to the fact that there is interference with the flow of urine through the ureter. It is to obviate this trouble with the ureter and the occurrence of permanent fistula, that Dr. Fenger has taken this advanced step. Operations on the ureter for obstructions have been followed by good results; in seventeen cases there were only three deaths. For examination of the ureter Dr. Fenger suggests passing a probe down the ureter to the bladder, but this is difficult and often impossible to do through an opening in the kidney. Then he recommends opening the pelvis of the kidney or the ureter. With the ureter open the probe may usually be passed, but it is often difficult even then to pass a probe clear to the bladder, owing to

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the curve at the sacro-iliac junction. If the ureter is diseased there is danger of pushing the probe through, or of injuring the ureter by the probe catching in the valves, consequently in examination of the ureter I would recommend irrigation by introducing the tube of an ordinary irrigator and passing water through it. With a large catheter in the bladder the water will flow freely through a normal ureter, the full capacity of which is that of a three-eighths inch rubber tube.

Furthermore, while the water is passing through, the ureter will stand out as a full round tube, and can be felt throughout its entire length. If there is an obstruction, of course the water will not flow through. The rapidity of the flow of water will show whether there is partial occlusion. Constrictions will quickly show, as you can feel the constrictions, or dilation of the tube above them. I think that this procedure is much easier than attempting to pass a probe, and that it will usually give more satisfactory results.

Dr. WELLER VAN HOOK: I wish to report briefly a case which came under my observation last summer. I was invited by Dr. Halstead to see a boy of nineteen, whom we supposed, after examination, to be suffering from an abscess of the spleen, following typhoid fever. No aspiration was done, and the diagnosis was made upon the temperature he had had, and the fact that there was fluctuating tumefaction in the neighborhood of the spleen. Exploratory laparotomy was performed, and a distended kidney was found. A free incision was made into the sac after stitching the peritoneal surfaces together, and the fluid, which looked like slightly turbid urine, was allowed to flow away. The temperature of the boy was accounted for by the bacteriological examination, which revealed white pus microbes in the sac, showing that we had to deal not with hydronephrosis, but with a pyronephrosis. A permanent fistula remained, and the kidney on that side discharged almost as much urine as the normal kidney on the other side, the proportion of urea being only slightly diminished, the function of the kidney was regarded as good in all respects.

Through the courtesy of Dr. Halstead I operated upon the patient for the permanent fistula three weeks ago. As the urine that came from the affected kidney was of such good quality and quantity, it was thought desirable to open from behind and explore before deciding to remove the kidney. The incision recommended by Küster was used in this case, and exposed the ureter to the extent desired. The incision was started two inches to the left of

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the posterior median line, was carried down for an inch and a half almost straight, and was then curved rather abruptly forward in the direction of the anterior superior iliac spine. As soon as the anterior lumbar fascia was opened there was no difficulty in discovering the ureter, which was smaller than it should be, and apparently atrophied. At the time of the operation the fistula in front had somewhat contracted so that the flow of urine was diminished. The dilated kidney could be felt without difficulty in its normal position. Upon opening the kidney at the lowest portion, the fluid, consisting of urine mixed with a little pus, ran out in abundance. On passing the finger into the kidney, and hooking it into the pelvis, the ureter was easily palpated, but no stone was found. It was thought best to explore the ureter, and a longitudinal incision was made in the side of the ureter, and a probe passed upward toward the pevis of the kidney, the finger still remaining in the pelvis.

When the probe passed up I could feel a membrane between it and my finger, and concluded this was the cause of obstruction to the outflow of urine. I was prepared to perform the operation which Küster had done, and after resecting the ureter at that point I sutured it into the pelvis of the kidney, but before this step was completed, I explored the lower portion of the ureter and found that it was completely obstructed, not by a calculus or a stricture, but by obliteration of the ureteral lumen, evidentlyasa result of a violent ureteritis; so there was nothing left to do but to extirpate the kidney, which was done.

I have here a specimen which illustrates another phase of ureteral surgery. I have been making some experiments recently, one object of which was to determine whether anything could be done in the way of uniting the ureter after it had been transversely cut. I tried several different methods of suturing, and concluded that it will be found impossible in all instances to suture the ureter transversely or obliquely by a simple method so that it will hold water and will not result in a stricture. Hence I have resorted to a different procedure which was successful in the one animal upon which the operation was performed. I simply ligated the distal portion of the ureter which passed into the bladder, then made a slit in the side of the ureter below the ligature and through that slit introduced the upper end of the ureter. This was accomplished by means of a suture attached to the upper end of the ureter and carried through the slit by its needle, the point of which was carried down the ureteral lumen and out through the

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wall of the ureter. When the upper piece is drawn down into the lower it completely prevents regurgitation of fluid and obviates all contamination of the abdominal cavity, so that there is no reason why the ureter should not heal. The point at which union took place in this operation is not contracted to any extent, in fact the

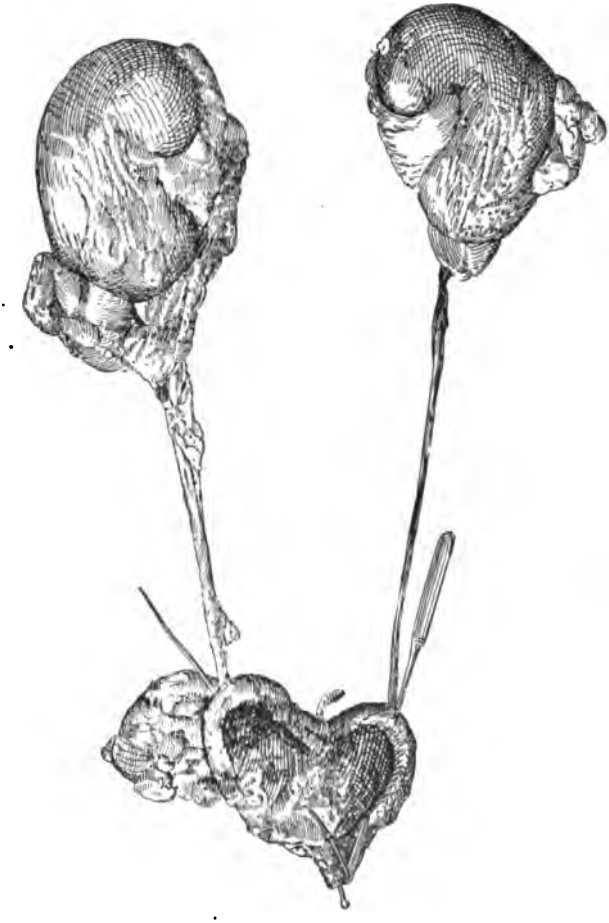

FIGURE 1.

Fig. 1 shows the permeability of the ureters as demonstrated by probes passing through them into the bladder from artificial openings in the sides of the ureters above the point of operation.

ureter there is wider than at other points because the line of union at the point of entering the lower portion is oval and not circular. When union is complete the oval is converted into a circle by traction, and there is a longer line of union than would be

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represented by a crosscut through the ureter itself. The dog was killed three weeks after the operation.

Dr. FRED. BYRON ROBINSON: I was very much interested in Dr. Fenger's paper because it represents a vast amount of industry, and also because the kidney is becoming more and more interesting to gynecologists. The diagnosis of disease of the kidney is very difficult, because the kidney is more profoundly connected with the solar plexus than any organ except the uterus. There are twelve to fifteen nerves with large ganglia penetrating the kidney, and this makes the diagnosis difficult. The symptoms are largely reflex. The lumbar nerves are right under the kidney and the moment it swells the patient has pain in the thigh and loins.

FIGURE 2.

Fig. 2 shows the right ureter laid open into the bladder along the probe. The breadth of the mucous membrane is not diminished at the site of operation.

The composition of renal calculi at various ages of the stone is now receiving attention. Beginning in childhood the stone is composed of ammonium urate; later on it is oxalic acid, and in old age it is oxalate of calcium. Often three layers may be seen in these stones, and they may remain in a man's kidney for twenty years. The operation of nephro-lithotomy was first done by Morris in 1880, and he said at that time that both kidneys should

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be explored before one was cut out. I have in mind a man who took out the only kidney a patient had and this patient lived fourteen days without any kidney at all. A case is reported of a girl who lived seventeen years without a particle of kidney, the urine coming out of the umbilical vein from the liver. The advance that has been made in kidney surgery since 1887 is astounding. I saw Billroth take a cyst from the kidney of a child, it peeled out just like a nut from its shell, and he said, "I am sorry, but I will have to take that kidney out because I have wounded it." Now we cut into the kidney and probe it in every direction with impunity.

Dr. Fenger said that in operating for stone the sound is not reliable and that the finger is a good thing. In my experience the sound has proved the most satisfactory. I have here some specimens which seem to prove that the finger is entirely insufficient after you cut into the kidney. These are paraffine casts of the pelves of the kidneys of a woman thirty-five years old. In the one kidney Dr. Fenger's remarks would hold good, but in the other a man's finger could not explore it. I had the good fortune to live with Jordan Lloyd of Birmingham, who was the first to introduce the sound into the kidney. The sound will slip into the mouth of the calices and you will often find a stone that you would not otherwise. Morris himself operated upon a kidney and could not find a stone, and when he cut it open he found a stone about the size of a marble. It is difficult to find these stones, because the kidney hardens and feels full of stones. The sound or probe and the finger are both valuable in making a diagnosis of kidney trouble. I would rather use the needle first because by it a stone may sometimes be immediately made out. Another important point in making a diagnosis is that there is an absent kidney in one out of five thousand cases; therefore we should be careful not to take out the only kidney the patient has. One of my friends did this and the patient can only stand up for a few minutes at a time, because he took out the only secreting kidney she had. In one case out of five hundred there is a congenital kidney. It is very small and the other kidney has to do the work, therefore if you take the working kidney out the patient has nothing left. It is important to remember these things in making a diagnosis.

I have observed that in every hundred abdominal or vaginal hysterectomies three ureters are tied; what should be done with them? To put them in the abdominal wound leaves a fistula in the abdomen, which is very severe. I experimented a long while with dogs to see if I could put the ureter in the small intestine,

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and every dog died from fistula. I am now going to try to put it in the large intestine of the dog. I also experimented with a view to ascertaining if the kidney would renew its function after being stopped for a long time, and I found that after the ureter had been stopped for a few weeks it would go on again.

DR. CHRISTIAN FENGER, in closing the discussion, said: Concerning the exploration of the ureter by means of injecting fluids through the wound in the kidney, as compared with the use of the sound, in intermittent hydronephrosis, unless the stoppage is absolute some water passes, and if there is nonpassage of water the injection does not show where the stricture is located as does the probe. The metal probe may be made of thin copper or silver wire such as is used for uterine probes, and I have always been able to get down over the brim of the pelvis. The valves of the ureter naturally open downward and if we use a flexible sound or probe I do not see how it could be caught by them, nor do I see that there is any danger of tearing the ureter with a sound. I have seen Tait's experiments and noted the ingenuity with which he has attempted to unite the ureter transversely, but these efforts have usually been unsuccessful. However, Dr. Van Hook's experiments are entirely orginal and I can see that they are of the utmost importance and value. Dr. Van Hook's case is similar to Küster's; of course the fold at the entrance to the infundibulum could only be seen by opening the pelvis. As to stricture further down, there is the question of reëstablishing the passage through the ureter. If the stricture is so long that a resection prevents the cut ends coming together, there is an end to the possibility of reestablishing the passage from the kidney to the bladder.

As to Dr. Robinson's criticism of my assertion that the finger is better than the sound or the needle, it was not my idea to do away entirely with the needle and sound in exploration, but I have repeatedly unsuccessfully explored the kidney with the needle for stones and afterward found them by digital search. As to exploration with the steel sound or probe, which of course is not done until the kidney is incised on its convex border, I am rather convinced of the superiority of digital examination, breaking through the tissues in order to get the finger tip in all parts of the kidney, rather than to rely upon exploration with the sound alone. Cases are many where stones have been cut for and not found or where a stone was taken out and several stones left. So I would maintain the value of digital exploration, but not to the conclusion of other means.

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Dr. Charles Reade, of Mansfield, Ohio, has made some very interesting and important experiments on dogs, and exhibited a specimen at the last meeting of the American Medical Association in Detroit, in which he had succeeded in some cases in implanting the ureter in the rectum.

Dr. E. J. KUH read a paper entitled "A Topical Treatment of Bronchitis." See page 189.

Dr. E. ANDREWS read a paper on the "Management of Cases of Recurrent Urinary Calculi." See page 171. The paper was illustrated by the exhibition of a specimen of large calculi removed from the bladder. Dr. Andrews also presented the subject of "Clamps for Securing Bony Union of the Fractured Patella." See page 174. Four forms of clamps were exhibited, including two devised by Dr. Andrews.

Dr. CHRISTIAN FENGER: We should have Malgaine's hooks, or some modification of them brought up again, inasmuch as the results of the open suture and the occluded suture of the patella are so imperfect. It will be a question for the future to solve whether in such cases Malgaine's hooks will be able to procure a bony union. They certainly deserve a trial now, as other methods are bad.

Dr. Andrews' first paper referred to relapsing stones. The specimen seems to me to be a phosphatic stone.

About a year ago a man came to see me with cystitis. I found a stone, but he had had cystitis so long that I thought it would be advantageous to drain the bladder, consequently I did suprapubic cystotomy and drained the bladder, then I sutured it. A couple of months later I got one of the sutures that he passed with a stone. A year afterward he came to me with as much pain as he had before, but no cystitis. This time I crushed the stone.

As to Dr. Andrew's proposal to remove small stones by the evacuator, I think it is a very good one, but at the same time do not consider crushing so formidable as he seems to make it. Where we can pass the evacuator it is easy enough to pass the lithotrite, and the crushing is very little additional injury to the patient. I should prefer crushing to taking out the stone without crushing. It seems to me it might be difficult to get an instrument with an uncrushed stone in it out of the ureter.

There were in attendance fifty-five members and visitors.

On motion the Society adjourned.

JUNIUS C. HOAG, *Secretary.*

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Regular Meeting, February 20th, 1893, at Orpheus Hall.

President HOTZ in the chair.

The minutes of the two preceding meetings were read and approved.

The Committee on Membership reported favorably on the applications of Drs. W. A. Pusey, 3002 Prairie Avenue; H. P. Woley, 3302 Rhodes Avenue, and F. N. Cochems, Cook County Hospital, and on motion the Secretary cast the ballot of the Society for their election.

The applications of Drs. L. B. Hayman, J. D. Hartley, Sidney Kuh, S. J. Beeson and Albert E. Froom were read and referred to the Committee on Membership.

Dr. B. F. ROBINSON reviewed his paper on the abdominal brain, read at the meeting of February 6th, as follows: The subject of my paper was the anatomy, physiology, and pathology of the sympathetic nerve. Here I represent the spinal cord and the brain; here I represent the three cervical ganglia each sending off one branch to the heart; and also the three splanchnics, forming the abdominal brain, and the hypogastric going to the uterus. I tried to prove that every organ has a rhythm and that a disturbance in any other viscus disturbs the rhythm of every other organ. For example, the irritation of any single viscus makes disease in a distant organ, that is, irritation from the uterus goes to the abdominal brain, and is reorganized and is then sent out in the direction of least resistance; if it goes to the intestines it makes three distinct alterations and the secretion may be too much, too little, or disproportionate. If it goes to the liver it disturbs the rhythm necessary in making the secretions, which are bile, glycogen, and urea, making them too much, too little, or disproportionate, and destroying the function of the liver. I tried to show that more irritation goes from the uterus because that is more intimately connected with the nervous system than any other organ; the genitals are more intimately connected with the cervical ganglia. Probably the next organ most intimately connected with the abdominal brain is the kidney. The next point was to show the rhythm of these viscera, which is their function. Another point was that in health and disease the pathology of the sympathetic nerve is reflex action. Take for example a lacerated cervix, which will make a woman need treatment in about five years. The irritation starts here, goes up to the abdominal brain, is reorganized and flashed

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out on all the viscera, disturbing the rhythm and secretion, and that makes indigestion, indigestion makes malnutrition, and after malnutrition comes anemia, and after anemia comes neurosis.

That illustrates the points I discussed.

Dr. ARCHIBALD CHURCH: It is necessary to go back a little bit to get some idea of the sympathetic nervous system, as it is erroneously called, for it is simply a peripheral system, as much so as the nerves in the arm, and nothing more. Some years ago we were disposed to deny nervous forces or energy to animals in which we could not demonstrate nerve fibers and nerve cells, but now it is admitted that the smallest protoplasmic cell has nerve attributes. If you take the mollusks, for instance the clam or oyster, you will find a number of ganglia connected by nerve fibers, but without the preconceived idea of a brain it would be impossible for any one by examining these ganglia to determine which are the most important, those in the abdominal portion of the animal or those about the esophagus. As you go higher up the animal scale, in proportion as the spinal axis develops the abdominal ganglia diminish until in man they are vestigial. The Doctor has omitted to point out that each vertebral ganglia has a spinal root which contains both motor and sensory fibers. Early in this century, Bell first described the spinal cord as giving off two nerves, the splanchnic, which is the inhibitory root of the lateral ganglia, and the spinal or body nerve. Unfortunately subsequent anatomists overlooked this and erected a sympathetic system which has been the abiding place of every fad and charlatanism that has cropped out since that time. The journals of homeopathy and orificial surgery are bristling with the sympathetic nerve, and lately with the abdominal brain. This theory we have heard divides up the unity of the nervous system and sets one part by itself, claiming that its pathology and physiology is reflex, that it is automatic and omits the important factor of its control by the cerebro-spinal axis.

The Doctor said two weeks ago that an irritation arising in the pelvis fell upon what he has termed the abdominal brain, that there this peripheral irritation was reorganized and sent out along the path of least resistance, which path he said was the one containing the greatest number of nerve strands. If this was so a given irritation would invariably follow a given course, uterine irritation would invariably follow a given direction, uterine irritation would always result in the same way or a vesical irritation would produce given reflex symptoms. There is not the slightest evi-

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dence to show that peripheral irritation is reorganized in the solar plexus, but there is proof that every reflex takes place in the spinal cord. We can accept the Doctor's dogma that there can be no manifestation of nerve energy without the interposition of nerve cells, and we can go further and say there can be no brain without nerve cells. Recent literature contains reports of many observers who have very carefully examined the ganglia of the solar plexus, and they have not been able to find a single nerve cell. Without nerve cells where is your abdominal brain, and where is your reflex? Rhythm is an inherent quality of every organized cell, it does not matter whether it be a nerve cell or a muscle cell or a secreting cell.

In every organ there is a rhythm which enables that particular organ to perform its function, so that rhythm is not at all characteristic of the abdominal brain, it is not characteristic of the sympathetic system, but it is characteristic of all cells. I do not think any one can admire more than I do the indefatigable industry Dr. Robinson has manifested in his experiments, but I regret that he has turned out this sort of sandbag term for the irregulars who are making much use of it. The Fullerian lectures of Horsely, delivered in 1891, cover this subject fully.

Dr. DICKINSON: I noticed that a good part of an article in the *Journal of Homeopathy* was quoted from Prof. Fox.

Dr. J. J. M. ANGEAR: With reference to the heart, I would a little rather the Doctor had not brought these fibers from the first, second and third cervical ganglia; it would have looked better if it had come from the third cervical and the first and second dorsal, and there we should find that we have rami communicantes going to the heart. I notice many of our more recent writers are dropping the term sympathetic or even ganglionic systems. We must bear in mind to-day that there is more doubt with reference to the action of what has been called the sympathetic system than ever before; we know more about it, and we may say we know less, because our knowledge has gone so far as to reveal to us our ignorance. I notice in that most recent and great work of Foster no chapter on the sympathetic system.

Dr. FRED BYRON ROBINSON: I am surprised at the direction of the discussion. The first point Dr. Church made was to show the error of these views, that with a given irritation we would have a definite result. I don't believe that is true; the human system does not work on that rule because all systems do not resist in the same way, and all fibers of similar nerves do not resist in the same

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way. Laceration of the cervix does not give the same results in two women; if it did medicine would be an exact thing. The charge that I have not looked up the literature cannot be sustained. I have looked over all the literature, except the work Dr. Church referred to, that was accessible in this city. I would like to suggest that he read a work by Fox, of England, on the sympathetic nerve. There is also a resumé of this subject given by Dr. Chapin, of Rhode Island. I am surprised that this is charged as a kind of charlatan's theory. I had no intention of duping anybody; this is the result of three years' work in all the animals I could get hold of, the horse, dog, cow, sheep, and a number of others, as well as the human. Another thing the Doctor seems to think is not put properly, that the sympathetic nervous system is independent from the cerebro spinal axis; I never said it was; but it has a certain kind of independence; the heart of an animal can be cut out and go on beating for hours afterward; the intestines of a dog will work for hours after removal, and the uterus of a cow will go through its regular rythm for an hour and a half.

With reference to rhythm, it seems to me these ganglia are about the only things that have rhythm, the cerebro spinal axis may have a certain amount of movement, but it has been obscurely demonstrated so far. New facts won't hurt anybody; every new fact leads to large unknown fields.

Relative to the rami communicantes, the nerves come out of the spinal cord, but the gray fibers go back to the posterior root of the spinal cord. I think it is a great oversight not to study these viscera in relation to this nerve, whether independent or not; if investigations are made we will gain new views, and very few authors have done anything with the sympathetic nerve.

Dr. HOLLISTER having been called to the chair, Dr. Hotz reported a case of Thiersch's grafting on the conjunctiva, and exhibited a patient. See page 184. The case was discussed by Drs. Oaks, Hollister, Dickinson, Fiske, and Hotz.

Dr. GEO. KRIEGER read a paper entitled "Enteroplastic Operation for removal of Artificial Anus," and exhibited a patient upon whom he had performed the operation.

Dr. F. B. ROBINSON presented fallopian tubes and ovaries, showing the last stages of gonorrheal infection.

Dr. CARL BECK exhibited specimens of large fibromata of uterus.

There were in attendance fifty members and visitors.

On motion, the Society adjourned.

JUNIUS C. HOAG, *Secretary.*

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THE CHICAGO PATHOLOGICAL SOCIETY.

Regular Meeting January 9th, 1893,

Dr. C. D. WESCOTT in the chair.

Dr. C. W. Earle reported a case of tubercular bronchial glands and presented specimens. See page 182.

Dr. HENRY M. LYMAN: I once saw this case when it was presenting pulmonary symptoms, and there was a statement that the child had suffered from whooping cough. My diagnosis was pulmonary tuberculosis, not so much from physical examination as on general principles, there being evidently tubercular disease in the family, and the surroundings being unfavorable. The cerebral symptoms had not then developed; therefore this chapter in the history of the case makes it additionally interesting, showing how wide-spread and extensive the lesions were before death. From the fact of the liver being invaded, it seems the infection took place as much through the abdomen as through the respiratory organs. Abdominal tuberculosis is generally due to infection through the food where there is not a direct transmission from the mother; the tubercular bacilli finding their way through the wall of the placental vessels, the liver becomes infected before birth. But usually abdominal tuberculosis comes from swallowing infective matter, and especially since children swallow their sputa almost entirely; thus the child might infect its own abdominal organs without infective food being taken.

Dr. C. W. EARLE also reported a case of mediastinal abscess. See page 176.

Dr. J. B. HERRICK: The primary disease, probably tubercular, was in the glands of the posterior mediastinum, situated near the tracheal bifurcation. A caseous gland here, opening into the trachea, would subsequently suppurate, the pathological condition resembling closely that of a traction diverticulum of the esophagus with perforation. Infection with pyogenic organisms of course having occurred previous to the perforation. This suppuration being located in the mediastinum gave many of the symptoms of abscess of the posterior part of the lung, dullness on percussion, bronchial respiration from compressed lung and the absence of any signs of trouble in the anterior portion of the chest. One of the interesting points in the case is the manner in which the pleura became infected. It was quite a surprise to all concerned to find at the autopsy a large amount of purulent fluid in the pleural cavity, because most careful examinations had repeatedly

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been made and not the slightest evidence of fluid in the chest had been found; but after the last exploratory aspiration, no physical examination of the chest was made, and it is plausible, as Dr. Weaver suggested, that at this time the aspirating needle caused a rupture of the abscess, which was previously purely mediastinal, and an escape of the contents into the pleural cavity with consequent empyema. We were considerably puzzled at that time to account for the sudden fainting and collapse of the patient.

Dr. HENRY M. LYMAN: This reminds me of a very interesting case that I have under observation. This patient had a severe pain in the right trapezius muscle which was referable to the territory of the spinal accessory nerve, and that pain continued for months. It was most agonizing and would not yield to treatment. The patient's general health was very poor; he had been an invalid for years. He had had the initial lesions of syphilis. At last the patient began to cough persistently; at first it was rather dry, but finally, after coughing a long time, he would raise a little clear mucus. The cough increased, and finally became that hoarse whoop which is characteristic of pressure upon the recurrent nerve in the thorax. I saw the patient from time to time, and made out an area of dullness on the right side between the angle of the scapula and the spinal column; there was no pulmonary change and no evidence of disease in the lung tissue. This condition lasted for more than a year, the cough getting more and more suffocating until at last a sudden evacuation of thick pus was coughed up; this continued for several days, then gradually subsided, the cough and pain diminished and the patient recovered. I examined the pus but could find no tubercle bacilli. Now this patient is beginning to talk again, and has pain in the mediastinal region, and I think there may be a repetition of the former history.

Dr. J. B. HERRICK: A young lady, a nurse, consulted me for pain between the shoulder blades, located more particularly upon the right side. I examined her several times most carefully for any evidence of disease in the lungs, but could find none. The pain kept getting worse, and fearing there might possibly be some obscure trouble with the spinal cord, I asked Dr. Brower to see the case, but he assured me there was no trouble there. Then an irritating, dry, hacking cough made its appearance, and every afternoon there was a slight temperature, yet never up to 100°, and there was also complaint of a little pain upon swallowing, so as to suggest an aneurism. The patient was under my observation for six or seven weeks; at the end of that time a slight dull-

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ness was manifest posteriorly near the right apex and Dr. Bridge, who saw the case, agreed with me that there was consolidation. The patient then went to her home, but the physician in whose care she was, wrote me concerning her, and in one letter said the glands in the neck just above the clavicle had become enlarged and suppurated, and that he had been obliged to open them. Frequent examinations were made for tubercle bacilli, but none could be found, and it was with difficulty that sputum could be obtained until late in the disease then the sputa became more abundant and a few tubercle bacilli were found, and the patient died with all the phenomena of pulmonary tuberculosis. It occurred to me that in my patient the primary trouble had been tuberculosis of the glands in the posterior mediastinum, which would account for the severe pain, the dry, hacking cough, the pain in swallowing, the absence of bacilli and the secondary infection of the lung.

Dr. D. W. GRAHAM presented a number of vesical calculi.

DR. WELLER VAN HOOK exhibited gross and microscopical specimens of sarcoma of the humerus. About a year ago a boy sixteen years of age was chopping wood in the timber and struck his shoulder by falling upon it. After a few days' soreness of the shoulder, all symptoms of the injury passed away. About eight weeks before I saw him, which was in the middle of November last, he began to have intense pain in the right shoulder just below the acromion process. The patient sought several doctors to obtain relief but none could be given except by the use of morphine. A swelling was noticed about the shoulder and the doctors diagnosticated beginning chronic inflammation of the shoulder joint. It was thought he had a tubercular inflammation of the shoulder joint and he was sent to this city with the expectation that there would be a resection of the joint. When the limb was seen, the impossibility of tuberculosis was of course recognized. A tumor of this size of only six or eight weeks' growth would preclude the possibility of tubercular disease. The pain had been intense and boring in character, situated in the bone apparently, and the shoulder joint was not distended with fluid, so that the diagnosis was at once made of sarcoma of the humerus beginning in the medulla. The humerus was therefore removed together with the acromion process and the head of scapula. The boy made a good recovery and in four or five days was out of bed and walking about and was sent home in ten days. He has had no symptoms since. This is probably a typical example of sarcoma of the humerus beginning in the medulla. Microscopically the growth is composed of large

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round cells. The rapid growth of the sarcoma would naturally suggest that cellular reproduction might be very easily studied. But it is certainly not easy with our present knowledge of the subject; because it seems that most of the cell growth has been by the direct rather than by the indirect method of cell reproduction. In many of the cells which are undergoing division by the indirect method there are irregularities of reproduction such as are described in the recent numbers of Virchow's Archiv. The point which most interested me in this case was the fact that the tumor grew with such extraordinary rapidity. At the time of operation diagnosis was confirmed by an incision into the tumor, when the finger immediately sank into a mushy mass of bone and sarcoma juice.

DR. H. N. MOYER: This case is one of spina bifida, in a child which I saw on the second day after birth. As you see a necrotic process had already begun in the sac, a pressure necrosis from prolonged and tedious labor. It was apparent that nothing could be done as the sac was infected and the child died four days after birth. You notice there is a talipes varus complete in the right foot, less marked on the left side, also contracture of the legs. The head of the child is normal. The post-mortem examination was made the day after death and revealed nothing abnormal in the abdominal and thoracic viscera. On opening the skull the surface of the brain appeared to be normal, although decidedly softened. With a pair of scissors the fontanelles were opened and the bones taken away. As soon as brain was exposed it burst, the ventricles, evacuating a considerable amount of fluid and pus, the brain sinking down into an indistinguishable mass. There was no pus over the surface of the brain beneath the meninges; it was all in the lateral ventricles, communicating with the fourth ventricle, the central canel and this sac.

I have drawn here the three principal, typical varieties of spina bifida. The first variety includes those in which the membranes protrude through a simple defect in the laminae, but the cord remains in the sac in the spinal canal proper or meningocele. The second variety is like the first, but there is also a protrusion of the sac or meningo-myelocele. There is another variety where the cord comes out and again returns. The third variety is syringo myelocele, in which the wall of the sac is formed externally by the integument, next by the membranes of the cord, and the internal lining of the sac by the spinal cord itself, the essential difference being one of dilatation of the central canal of the cord, and the entire cord be-

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ing carried out into the sac. I believe this last condition is decidedly exceptional, but it is the condition we have in this case. Unfortunately I have not had an opportunity to dissect this specimen sufficiently to clearly demonstrate this fact, but to my mind it is sufficiently shown. This is the sac itself, this brownish portion is that in which the necrotic process had been set up, and from which the infection extended upward. There are in the internal portion of the sac, portions of the cord that pass to the walls of the sac. I have removed the front portion of the sacrum and traced the cord downward, but it seems to me that the cord substance itself is largely spread out, and I think there is a small opening here which probably communicates directly with the spinal cord. It seems to me this is almost conclusively shown by the result of the post-mortem examination in the fact that there is no connection, as there is so often, between the membranes surrounding the brain and the tumor. I shall be glad to present the results of the microscopic examination at a later meeting.

Papers have been presented before medical societies of late in which radical surgical operative procedures have been recommended in these cases of spina bifida, one or two of which have met with success, but of course only in cases of simple meningocele. In the other varieties operative procedure would simply cut off the spinal cord. There are no means of absolutely affirming the presence of the spinal cord in the sac during life. The larger the tumor the greater probability of it being in the sac, with marked talipes or paralysis we may be almost certain that it is outside the canal. In twelve to fifteen per cent of all cases there is some variety of talipes, and in perhaps twenty-five per cent of all cases there is paralysis, which may or may not be associated with talipes; in about a third of all cases one or both of these conditions are present. Where the cord is in the sac any operative procedure directed to the removal of the tumors must not be thought of.

The injection method, which I have employed in one case with success, although it may have been a simple meningocele, as the tumor was not large, is in my judgment preferable in most cases when we are not certain that the cord is in the spinal canal.

Dr. C. D. WESCOTT: I delivered a child in which the integumentary layer of the sac of a spina bifida was incomplete over a third of the tumor and translucent. When the child was two weeks old I dissected through the integumentary portion of the sac, and reduced the nerve filaments through a very large defect in the bony canal without difficulty, and then it was found that the

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defect in the soft tissues was equally large. I closed in the defect with buried sutures taken in various layers beginning at the very edge of the soft ring, and as I thought successfully. Everything closed up beautifully, and I sealed the wound with an iodoform collodion gauze dressing which remained in place, and was not separated by any discharge. After forty-eight hours the child developed symptoms of cerebral meningitis, and lived eight days. On removing the dressing I found the wound perfectly clean, but there was incomplete union for the reason that there was escape of cerebro-spinal fluid.

Dr. H. N. MOYER: I did not refer to surgical procedures which contemplate the return of that portion of the cord which may be outside of the spinal canal; I referred especially to the cutting operation, which simply imitates the natural one in which the sac bursts and kills the child.

This case is exceedingly interesting to me in the developmental sense, and it was upon that line I was studying it, particularly as regards the relation of this condition to talipes and paralysis.

It is also interesting as showing the rapidity of infection when germs have gained access to the cerebro-spinal fluid. It seems that this fluid is an admirable culture medium.

Adjourned.

E. S. PETTYJOHN, *Secretary.*

COOK COUNTY HOSPITAL CLINICAL SOCIETY.

Meeting of February 2d, 1893.

Dr. R. B. PREBLE, presiding.

The minutes of the previous meeting were read and approved.

Dr. H. F. KORTEBEIN exhibited cases of 1 multiple alcoholic neuritis; 2 aortic stenosis with regurgitation and mitral insufficiency.

Dr. A. A. KNAPP read a paper on "Typhoid Hemorrhage," and reported twelve cases with especial reference to the following treatment: Morphia gr. ¼ at once and pulv. opii i gr. every hour unless respirations fall below 12 per minute. The measures which the author thought contraindicated were: 1. Elevation of foot of bed, because this has a tendency to increase the heart's action and accelerate the circulation. 2. Application of ice coil to abdomen, because this stimulates peristalsis and has a tendency to dislodge

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clot which might be forming. 3. Administration of ergot, because it is claimed ergot will stimulate peristalsis and raise the general arterial pressure. 4. Local hemostatics, acetate of lead and other hemostatics are not believed by the author to exert any appreciable influence on the hemorrhage. Of the twelve cases three died.

Dr. A. R. THOMAS reported a case of edema glottidis following acute tonsilitis. Patient had sore throat on the morning of admission to hospital. Admitted at 4 P. M. Examination showed signs of acute tonsilitis. Patient was also somewhat hoarse. At 7.30 P. M. could not swallow, but was breathing easily. Considerable swelling and some tenderness about angles of jaws. At 8:30 suddenly ceased breathing and became cyanotic, and when seen a few minutes later was dead. Autopsy revealed considerable swelling of the epiglottis and of the aryepiglottic folds, together with edema of submucosa and mucosa of larnyx; vocal cords were entirely effaced by the swelling. There were a few hemorrhages into the mucous membrane of larnyx. Tonsils swollen and inflamed, especially the left.

Dr. C. H. PIERCE exhibited a boy about ten who had been kicked on the left side of the head by a horse several months previously. Ever since the accident he has acted queerly and appears demented. On left side of vertex of skull a slight depression is demonstrable; no scar. Question of operation was discussed and operation favored.

Dr. E. R. LA COUNT reported a case of twins with two separate and distinct placentae, there being only a band of membrane about three inches broad between them.

Adjourned.

WILLIAM HESSERT,
A. F. SIPPY. } *Secretaries.*

Meeting of February 16th, 1893.

Dr. R. B. PREBLE, presiding.

The minutes of the previous meeting were read and approved.

Dr. WILLIAM HESSERT exhibited a case of acromegalia, a German, in the United States ten years. Family history, negative. Venereal history; acquired syphilis ten years ago. Ever since he can remember has noticed that hands and feet were disproportionately large; that face was massive and forehead

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prominent. Hands are large, flat; fingers, broad and spatulated; feet very large and broad. Frontal sinuses enormously developed, jaws massive. Patient has a tertiary papulo-squamous syphilide and diabetes.

Dr. ARCHIBALD CHURCH: The disease was first fully described seven or eight years ago by Marie, and since then about fifty cases have been reported. Changes in the pituitary body are also found in these cases, and the sella turcica becomes much excavated, even to the point of perforation.

Dr. R. B. PREBLE exhibited specimens as follows: 1. Two specimens of malignant endocarditis in one of which there was a communication between the right auricle and the aorta at the semilunar valves. 2. Cor villosum with endocarditis. 3. Carcinoma of esophagus. 4. Tubercular lungs. 5. Lobar pneumonia, grey hepatization. 6. Kidneys from case of nephrolithiasis in which one kidney had been operated upon, and large fragments of stone removed. Patient died few days later of uremia. Autopsy revealed an enormous calculus of the other kidney, about two by two and a half inches, conforming to the shape of the pelvis of kidney and calices. The kidney substance was riddled with abscess cavities.

Dr. HESSERT showed the following specimens from a case of leprosy. 1. Pneumonic grey hepatization. 2. Tongue and pharynx. At base of tongue were many scattered elevated tubercles extending up side of pharynx, supposed to be lepratubercles, but diagnosis withheld until after microscopic examination.

Dr. R. B. PREBLE read a "Report on Pneumonia." One hundred cases treated in Cook County Hospital.

Adjourned.

WILLIAM HESSERT, *Secretary.*

CHICAGO OPHTHALMOLOGICAL AND OTOLOGICAL SOCIETY.

Regular Meeting, February 14, 1893.

Dr. HOLMES in the chair.

Present, Drs. Holmes, Wilder, Gardner, Coleman, Hotz, Starkey, Beard, and Pinckard and Drs. Woodruff and Thomas by invitation.

Minutes of last meeting were read approved.

Dr. STARKEY showed a patient who had an attack of specific

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keratitis some months ago, for which he was treated and the inflammation subsided. There was left a large but not very dense leucoma occupying nearly the whole lower half of the cornea. A few weeks ago the patient returned with a feeling of a foreign body in the eye but none was found. The eye got gradually worse until a few days later the pain was very intense. The patient returned and a large bulla could be seen covering the old scar. This was punctured and got well but returned again with the same symptoms. The patient has had a great many since. They are five to seven m. m. in diameter and bag down with the weight of fluid. They occupy the same site each time. The symptoms come on rapidly, passing to a condition of great suffering in a short time. Treatment has been puncture and cocaine. The electric cautery was used eight days ago, since which the patient has had no bulla but the symptoms have occurred as if there were bullae present.

Dr. GARDNER spoke of a similar case treated by puncture, but as long as the patient continued under observation the bullae kept returning. She finally moved and Dr. G. heard indirectly that the bullae had ceased.

Dr. BEARD showed a very healthy girl, who, a year ago, first noticed redness of the conjunctiva.. Three months later there was a small red swelling at the semilunar fold of the left eye. This rapidly spread to the fornix of each lid. There was a similar swelling in O. D., but not so marked. When she entered the Infirmary three months ago there was dense trachomatous infiltration of each eye. Two very large folds of conjuctiva protruded from O. S., the upper being the larger. This upper fold was excised and has not recurred. The trachoma was treated with silver nitrate. Patient has a brother with trachoma, family otherwise healthy. Dr. B. had heard of no similar case, except one recently reported by Berry and called subconjunctival hyperplasia.

Dr. WILDER stated that the growth showed microscopically a thickening of the epithelium, no papillary prominences or cell-nests. There was no submucous tissue, but its place was occupied by a mass of round cells. Diag. hyperplasia conjunctivae.

Dr. WOOD spoke of two cases, seen at Moorfield's, much the same as Dr. Starkey's. These were reported as pemphigus. Neither case was affected by treatment. True xerasis of the conjunctiva followed in one case.

Dr. BEARD spoke of a case at the Infirmary which began as punctate keratitis. The inflammation seemed to work through the

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cornea and suddenly a large bleb appeared. This was punctured repeatedly but without permanent result, and was finally cauterized with slight improvement.

Drs. Lyman Ware, C. H. Williams, C. D. Wescott, H. H. Brown and J. F. Oaks were elected members.

It was voted to extend the privileges of the Society to the internes of the Illinois Charitable Eye and Ear Infirmary.

Dr. HOTZ said he had been delayed by a rather unusual accident. During the afternoon he had prescribed a one-half per cent solution of cocaine and one of duboisine. Three hours later he was sent for and found the patient suffering great pain in the eye. The tension was not increased. The duboisine solution was found decidedly acid. It was Merck's preparation. Cocaine subdued the pain in time.

Dr. GARDNER spoke of a case of poisoning from one drop of one-half per cent solution of atropine, in a patient who had used atropine repeatedly years before.

Dr. HOTZ suggested it might have been due to an abrasion. He had a child poisoned through a cold sore.

Dr. WOOD spoke of considering duboisine as uncertain in action and varying in strength.

Dr. PINCKARD spoke of a case of poisoning from one drop of one per cent solution of hyoscine sulph. An hour after use, patient had great dryness of throat, with inability to speak above a whisper and difficulty in swallowing, great flushing of face, etc.

Application of Dr. W. A. Mann was read.

Meeting adjourned by limitation.

C. P. PINCKARD, *Secretary.*

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Reviews.

THE DISEASES OF CHILDREN, MEDICAL AND SURGICAL. By HENRY ASHBY, M. D., Lond., and G. A. WRIGHT, B. A., M. D., Oxon, F. R. C. S., Eng. Second edition, edited for American students, by WM. PERRY NORTHRUP, A. M., M. D., Pathologist to the N. Y. Foundling's Home, Attending Physician to Presbyterian Hospital, etc., New York City. Longmans, Green & Co., London and New York. 1893. 183 Illustrations.

This book is found to contain not only the usual medical diseases of children, but their surgical complaints, and is written conjointly by a physician and a surgeon. The work is based upon material in hospitals for sick children in Manchester, which has been placed at the disposal of the authors, and inasmuch as this includes 1,200 in-patients and 10,000 out-patients, the opportunities for observations and deductions have been immense. The first edition was published in 1889, the second English edition in September, 1892, and the American edition in January, 1893. Dr. Northrup, the American editor, has thought best to leave the body of the book intact, and what he has written, to note such difference in theory and treatment as shall bring the book into accord with American practice, will be found in the appendix. The book has many things to recommend it both from a medical and surgical point of view. No work is known in which a larger number of diseases are described than are found here, and the subjects which one finds discussed correspond more nearly to those presented by the reviewer in his teachings than is contained in any other book of diseases of children.

Diseases of the gastro-intestinal canal with minor surgical difficulties are well brought out.

Diseases of the respiratory apparatus next engage the attention of our authors, and we are happy to notice that in the general discussion of intubation, Dr. Waxham, of our city, is given the prominence he deserves. Intubation is evidently not esteemed as highly in England as it is with us, and Dr. Northrup thinks the difference may be because it is regarded by our foreign friends as an easy operation, and to the crude, almost amateur instruments which are furnished by the instrument makers in Britain.

The advice given in regard to diphtheria is excellent. Local treatment is insisted upon from the very first, and is carried out

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energetically and systematically. Indeed the article on diphtheria, and the same may be said of tuberculosis, are quite exhaustive, and we understand that the medical author of the work has spent considerable time in large European centers with the most prominent pediatricians working out these subjects.

No pathology is given in connection with enteric fever, which we regret exceedingly, as we have failed to find a recorded case in which the autopsy revealed bacilli in the usual organs that are found invaded in adults. Who will furnish this? The chapters on the diseases of the circulatory system as relating to children are fully given, are interesting and valuable. The same may be said in regard to the remaining chapters given to the surgery of bones, joints, and deformities; indeed, the more we read the book the better we like it.

The American author, in addition to many other excellent things, introduces us to a subject upon which there is a demand for more instruction from those who are capable of imparting it, that is, therapeutics peculiar to children. Fifteen pages of the thirty which he contributes are devoted to infant food and therapeutics.

In closing this review, which we regret cannot be more exhaustive, we have two regrets to express, the first of which is that the book is not printed in a little larger type, an error for which we are inclined to blame the publishers; and the second, that the American editor, who is so eminently qualified, did not give us more American therapeutics which we believe is in advance of anything yet given to us by continental writers.

In conclusion, we wish that not only "senior students and junior practitioners," quoting from the author's preface, but every one who wants a condensation of about everything given upon medical and surgical diseases of children, up to the present moment, would read this book.

HANDBOOK OF MATERIA MEDICA, PHARMACY AND THERAPEUTICS, including the physiological action of drugs, the special therapeutics of disease, official and practical pharmacy, and minute directions for prescription writing. By SAMUEL O. L. POTTER, A. M., M. D., M. R. C. P., Lond., Professor of the Theory and Practice of Medicine in the Cooper Medical College of San Francisco; Visiting Physician to St Luke's Hospital; Author of "Quiz Compends" of Anatomy and Materia Medica, "An Index of Comparative Therapeutics," and "A study of Speech

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and its Defects." Formerly A. A. Surgeon, U. S. army, and Brigade Surgeon, N. G. of California. Fourth Edition Revised, with thumb index. 781 pages. $4.00 Cloth. $5.00 Leather. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut Street. 1893.

Dr. Potter's handbook is exceedingly concise, and yet complete and thoroughly reliable. The success of the earlier editions as evidenced by the early necessity of a fourth edition has been phenomenal, and it is to be predicted that the fourth edition will soon be exhausted. Any work on this subject must be largely a compilation, but the author has included in his handbook the results of an enormous amount of original research and experiment. The medicines are classified first generally in synopsis, according to their effects on the system, and are then placed for fuller description in alphabetical order, each agent is fully described, all preparations, both officinal and unofficinal, detailed, and the physiological action and therapeutics briefly and yet fully considered. The second part of the work is devoted to pharmacy and prescription writing, and these subjects the author has also treated carefully and completely. The section on incompatibility is especially valuable. Part III., which deals with special therapeutics, contains not only the author's views, but also those of other masters in the practice of medicine, many of whose formulae, as well as his own, he records. These formulae will prove especially valuable to the young practitioner. The appendix contains a list of Latin words and phrases used in prescription writing, with the amount of grammar necessary to their proper combination; hypodermic formulae; alleged formulae for certain patent medicines; a brief practical discussion of the treatment of poisoning; tables of differential diagnosis; notes on temperature in disease; obstetrical memoranda; urinalysis; a condensed code of ethics, and tables of specific gravities; weights and measures, and prescription doses and quantities. The index is also very full and complete, and much time will be saved to the reader by the thumb index. The table of errata is larger than it should be, and one would criticise the good taste of the author in including in his list of titles the fact that he is the author of certain quiz compounds, etc.

Aside from these two points of criticism, nothing but good is to be said of the book. It contains a remarkable amount of well arranged information, and there is not a trace of discursiveness or lack of practicality in the entire book.

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THE CHRONIC DISORDERS OF THE DIGESTIVE TUBE, WITH APPENDIX. By. W. W. VAN VALZAH, A. M., M. D., Formerly Demonstrator of Clinical Medicine, Jefferson Medical College. 151 pages. New York: J. H. Vail & Co., 1893.

The author of this little book has combined and reprinted a series of articles which have appeared in the medical journals and has added one chapter, that upon habitual constipation. As a whole, the work is valuable and practical. The author, in order to make the consideration of each subject complete, has been obliged to repeat again and again, certain principles of treatment. He lays great stress upon the dietetic and hygienic management of chronic disorders of the alimentary tract, but discourages the too common employment of washing out the stomach, prefering to use instead of the stomach tube, hot water taken frequently and in comparatively small quantities. Although the author does not give Dr. Salisbury credit for it, he advocates the Salisbury treatment of beef pulp and hot water, together with the use of only such medication as is directly indicated.

In the appendix, the treatment of functional and catarrhal diseases of the stomach and bowels is practically considered, the treatment advised being upon the same lines as in the preceding chapters, namely, in order of importance, hygiene, diet, medication.

The second chapter of the appendix, discusses the nature and preventive treatment of seasickness. The value of such discussion is problematical. The infallible remedies for seasickness are many, their fallibility uniform. It is apparently foreordained and predestined that certain persons will be seasick, no matter what precautions they take. Some confirmed dyspeptics are never sick at sea; on the other hand, many persons with perfect digestive apparatus on land, cannot be relieved from seasickness even by the most approved bromides, and antinauseants. The author details sixteen theories as to the causation of seasickness. One cause not mentioned here, but frequently noticed by the reviewer, is the intemperance in eating and drinking practiced by so many before taking a sea voyage on account of the seasickness which they are sure will come, an intemperance sufficient to cause, on land, an acute attack of indigestion.

The book is neat in appearance, well printed and well bound. The proof reading has not been very carefully done, and the absence of an index detracts somewhat from the value of the work, still it is eminently practical and will prove interesting and instruc-

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tive to the general practitioner who so often has chronic disorders of digestion to treat, and who obtains as a rule such unsatisfactory results.

A MANUAL OF CLINICAL OPHTHALMOLOGY. By HOWARD F. HANSELL, M. D. and JAS. H. BELL, M. D., 120 Illustrations, pp. 231. $1.75. Philadelphia: P. Blakiston, Son & Co., 1892, Chicago: W. T. Keener Co.

This little book is something more than a compendium, but does not pretend to the dignity of a complete treatise of the subjects included in its table of contents. It may with propriety be said of it, however, that within the limited space of 231 pages it has compressed many if not most of the points of practical value to the teacher and student. It is neatly bound, of a convenient size, and, as becomes a work by good ophthalmologists, is printed on white paper in clear broad faced type. The defects of the book are not serious or of frequent occurrence, and if some of the statements made do not coincide with those generally received they are doubtless presented to us by the authors as a kind of a minority report. It would have been better, perhaps, to have mentioned that the skioscopy (rebinoscopy) method described is not the usual one and that, on the whole, it is less liable and less easily learned and practiced than that carried out by the stationary observer placed five feet from the patient. No mention is made of homatropine and cocaine disks as a substitute for atropine and duboisine in refraction work, and the term "mydriatic" is confounded with "cycloplegic" in describing a paresis of the ciliary muscle. Glioma (p. 183) is described as a "carcerous" growth.

We are told (p. 30) that the tears "are forced by working into the puncta lachrymalia" thus entirely ignoring the working of that beautiful suction apparatus whose motor power is Horner's muscle. The negative angle A can hardly be adequately defined as a coincidence of the optic and visual axes (p. 26) while in the posterior extremity of the optic axis is certainly not that variable and indefinite point "the center of the retina." The use of "scrophulosis," the noun, for "scrophulous," the adjective (page 102) is hardly less commendable than that sample of bastard Latin *"foramen opticus choroidea"* exposed on page 11. The chapter on the ocular muscles is unusually well written but we would mildly suggest that it is our compatriot Stevens and not the unknown "Stephens" to whom credit should be given for a nomenclature definitely indicating their various functional disturbances.

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LECTURES ON MENTAL DISEASES. Designed especially for medical students and general practitioners. By HENRY PUTNAM STEARNS, A. M., M. D., Physician Superintendent of the Hartford Retreat; Lecturer on Mental Diseases in Yale University, etc. With Illustrations. Philadelphia: P. Blakiston, Son & Co.; 1893. Small octavo, 636 pages. Cloth $3.00.

In some respects this work is highly to be commended. Certain of the lectures are models of their sort and their grace of diction and thorough presentation of the clinical type is very admirable. A certain lack of balance may be noticed, however. A polemical, lengthy chapter on classification, which ends up with a very simple and practical one, might with propriety be freely pruned. The book is also loaded up with the customary seventy-five or eighty pages of appendix giving extracts from the laws of different States and territories. The opening chapters on the physical basis of thought, while highly interesting, are also highly speculative and scarcely come under the title. In some of the given examples of the insanity of masturbation, apparently effect and cause have been confounded. The chapter on acute delirium as a form of mental disease especially for the general practitioner as well as for the psychiatrist is very appropriate. There is about the work an apparent intention to coin new words of an unnecessary character, and occasionally a peculiarity of expression which probably is personal with the author. In a subject so complicated and so abstruce as psychological medicine, purity and simplicity of language is most desirable. For the students who have heard these lectures the volume will be of unquestioned value and service.

ELECTRICITY IN DISEASES OF WOMEN AND OBSTETRICS. By FRANKLIN H. MARTIN, M. D., Professor of Gynecology Post Graduate Medical School, Chicago; Attending Surgeon, St. Luke's Hospital, etc. With illustrations. W. T. Keener, Chicago, 1892. Octavo, 252 pages. Cloth $2.

Dr. Martin has written this work from the standpoint of a text-book, entering into all the infinite details which a student might not be expected to know and which are of extreme value to practitioners even with a moderate amount of experience in the management of this therapeutic agent. In this direction the book is remarkably satisfactory, and the opening chapters on the principles of electricity and magnetism are valuable. The latter portion of the work which treats of the application of electricity to the

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diseases of women and in obstetric cases, is of particular merit, coming from the pen of one who has had great personal experience, and who, moreover, takes a judicial view of the matter and recognizes clearly many of the limitations of the agent under consideration. Although paying a high tribute to Apostoli and following somewhat in his footsteps, the author has in many instances improved upon his methods and unlike his prototype is an operating surgeon with a knowledge of the value of operative procedures when the less heroic treatment of electricity fails to give the desired result, or in cases where it is inapplicable. Perhaps no more temperate modern resumé of the entire subject is available, and it is therefore recommended to students and practitioners with the conviction that it will meet their wants.

A Hand-book of Insanity, for Practitioners and Students. By Dr. Theodorf Kirchkoff, Physician of the Schleswig Insane Asylum, etc. Illustrated with eleven plates. William Wood & Co., New York 1893. Octavo, 362 pages. Cloth $2.75.

The appearance of this Handbook, and its especial value for the student, is a matter for congratulation. The arrangement of the work is beyond criticism. The first part of the book takes up in a general way the consideration of the subject, including a discussion of the causes, the signs, the course, the diagnosis and the treatment of mental disease. It is refreshing to have a book from a German author with so simple a classification and so reasonable a one from a clinical standpoint. This classification upon which the second part of the book is arranged is confessedly an arbitrary one, but enables the author to systematically present the various forms of mental disturbance. It is the opinion of the reviewer that the pathology of puerperal insanity has not yet been written and that the enormous advance in our knowledge of infection should be brought strongly to bear upon this question; the subsidiary conditions, however, are very clearly stated in this work. It is well balanced throughout, is particularly desirable for the student, and to the practitioner who has not the opportunity or inclination to consult more extensive works it must be very valuable. It is a pleasure to recommend it.

The Hygiene of the Sick Room; A Book for nurses and others. Being a brief consideration of asepsis, antisepsis, disinfection, bacteriology, immunity, heating and ventilation, and kindred subjects, for the use of nurses and other intelligent women. By

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WILLIAM BUCKINGHAM CANFIELD, A. M., M. D., Lecturer on Clinical Medicine and Chief of Chest Clinic, University of Maryland; Visiting Physician to Bay View Hospital, Visiting Physician to the Union Protestant Infirmary, etc., Baltimore. 247 pages, $1.50. Philadelphia: P. Blakiston, Son & Co. 1012 Walnut street. 1892.

This valuable little handbook carries out well the promise made in its somewhat extensive title. The subjects under discussion are considered clearly, briefly, and pleasantly. There is little irrelevant matter, and a great deal that is eminently practical. The author has solved very satisfactorily the problem of writing a readable, pleasant, and yet thorough, and practical book, on a subject which is ordinarily considered uninteresting, and, unfortunately by too many, unimportant. The chapters on infection, disinfection, ventilation, and heating are especially interesting, and of great practical importance. The whole book may be studied with profit, not only by "nurses and other intelligent women," but by students and physicians.

PAMPHLETS RECEIVED.

SYMPATHETIC OPHTHALMIA. By J. ELLIOTT COLBURN, M. D. *Med. Herald*, 1893.

FEL BOVINUM AS A THERAPEUTIC AGENT. By D. H. BERGEY, M. D. *Am. Therapist*, Jan., 1893.

TREATMENT OF LARGE ABSCESSES. By A. E. HOADLEY, M. D. CHICAGO MEDICAL RECORDER, Nov. 1892.

GASTROSTOMY IN CARCINOMA OF THE CARDIAC ORIFICE. By EMORY LANPHEAR, M. D. *Med. News*, Oct. 1, 1892.

REMARKS ON SO-CALLED URETHRAL FEVER. By G. FRANK LYDSTON, M. D. CHICAGO MEDICAL RECORDER, Jan., 1893.

INTRODUCTORY ADDRESS AT THE CHICAGO COLLEGE OF P. AND S. By G. FRANK LYDSTON, M. D. *West. Med. Rep.*, 1892.

A SERIES OF DEGENERATE AND CRIMINAL CRANIA. CIRCINATE PAPULO—ERYTHEMATOUS SYPHILIDE. STRICTURE OF THE URETHRA. By G. FRANK LYDSTON, M. D. Geo. Klein & Co., Chicago.

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News Items.

"CATHARTICS" is a $600,000 item in the Panama Canal expenses.

L'Union Medicale of Paris now has as its editor-in-chief Dr. E. Rochard.

Dr. H. P. WOOLLEY has opened an office at his residence, 3302 Rhodes Avenue.

Prof. VON ESMARCH, on January 9th, celebrated the completion of his seventieth year.

DR. JOHN RIDLON has been appointed Orthopedic Surgeon to St. Luke's Hospital, Chicago.

M. TILLAUX has succeeded Professor Verneuil in the chair of Clinical Surgery in the Paris Medical Faculty.

MACARONI has been used as a catheter in a case of emergency by Dr. Kirkpatrick, of Montreal, with success.

PROF. RUDOLPH VIRCHOW has been elected a second time President of the German Anthropological Society.

DR. JOHN SUNDBERG, late editor of the *Pacific Medical Journal*, has been appointed United States Consul at Bagdad.

DR. A. C. WEDGE, of Albert Lea, has been reappointed assistant surgeon on the staff of the Governor of Minnesota.

THE MEDICAL BULLETIN still appears, though publishing companies fail. Dr. Kauffman is now editor and proprietor.

THE MISSOURI STATE MEDICAL ASSOCIATION meets at Sedalia on May 16, 17 and 18. The meeting promises to be largely attended.

DR. JAMES BELL, one of the best known and most highly esteemed physicians of Kansas, died recently at his home in Olathe.

Dr. E. J. KUH has rented one of the best suites in the Columbus Memorial Building; one room in the suite has not yet been disposed of.

WOODEN TONGUE DEPRESSORS are now made and sold in Germany. They are cheap, clean and may be destroyed after being once used.

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DR. J. JOHNSON, of Hudson, Wisconsin, has been appointed Surgeon General of the Wisconsin National Guard, vice Dr. Nicholas Senn, resigned.

Dr. F. X. WALLS, late of the Cook County Hospital Resident Staff, has been appointed Assistant County Physician. This is a most admirable selection.

DR. J. CHALMERS DA COSTA, Instructor in Surgery, has been elected Demonstrator of Surgery at Jefferson Medical College, vice Dr. Orville Horwitz promoted.

THE BICHLORIDE OF GOLD COMPANY, at Chicago, with a capital stock of $200,000, was incorporated last month for the cure of alcohol, opium and tobacco habits.

LABOR PAINS may be induced, says Freund, by the application of electricity to the mammary gland, the cathode applied to the gland and the anode to the abdomen.

THE ALEXIAN BROTHERS have been obliged to postpone the erection of their South Side Hospital on account of losses consequent upon the failure of Michael Schweisthal.

DR. L. S. MCMURTRY, of Louisville, has been elected to the chair of gynecology in the Hospital College of Medicine, Medical Department of the Central University of Kentucky.

DR. ORVILLE HORWITZ, chief assistant of the surgical clinic and demonstrator of surgery at Jefferson Medical College, has been elected Clinical Professor of Genito-Urinary Diseases.

SAN FRANCISCO AND CHICAGO druggists are indulging in a war of cut rates on patent medicines, and each vies with his neighbor in his efforts to induce the simple public to swallow the poison.

THE AMERICAN GYNECOLOGICAL JOURNAL for December reached the exchange table February 23. Is the index, which by the way is very full and complete, responsible for this delay of sixty days?

HEALTH OFFICER JENKINS, of New York, was the guest of honor at a dinner in New York on February 18. Politicians attended in force, but prominent medical men were noticeably absent.

DR. FRANK S. JOHNSON, after February 22d, will occupy the building at 2523 Prairie Avenue, with his temporary residence at 2454 Indiana Avenue, until the completion of his new residence on Prairie Avenue. Telephone South 239.

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Dr. ARTHUR R. EDWARDS, late of Cook County Hospital Resident Staff and at present in Vienna studying pathology and internal medicine, writes that the surgical clinics of Vienna do not compare favorably with those of Chicago.

FOR SALE.—Drug store in Florida; in county seat and railroad center; but little competition; stock and fixtures for sale at cost; owner has removed from State. Russell T. Hall, Greenwich, Conn.

A MEMORIAL TO DR. AGNEW in the shape of a new endowed ward at the University Hospital, Philadelphia, is to be erected. Dr. S. Weir Mitchell is chairman of the committee soliciting subscription.

MR. ALFRED BAKER, the well-known surgeon of Birmingham, late President of the British Medical Society, and uncle to the Archbishop of Canterbury, died at his residence near Birmingham last month.

A STATUE TO SIR RICHARD OWEN was decided upon at a meeting held on January 23d, at Burlington House, under the presidency of the Prince of Wales, to be placed in the Hall of the Natural History Museum.

PROFESSOR RUDOLPH VIRCHOW will deliver the Croonian lecture before the Royal Society, England, on Thursday, March 16th. The subject of the lecture will be "The Position of Pathology among the Biological Sciences."

THIOL is highly recommended by Bidder as a remedy for burns. The affected and adjacent parts are painted with a fifty per cent solution of liquid thiol in water and then covered with cotton. This also relieves the pain.

THE NATIONAL ASSOCIATION OF RAILWAY SURGEONS will hold the sixth annual meeting at Omaha in the last week of May, 1893. The main topic for discussion will be "Injury of the Spinal Cord, and its Envelopes without Fracture of the Spine."

The *Gross Medical College Bulletin*, a sixteen page monthly organ of Gross Medical College, Denver, has just appeared. Its appearance and contents reflect credit upon its editors, Drs. Thomas Hayden, Hawkins and Edward Curtis Hill.

URINE FOR SNAKE BITE externally and whisky internally is strongly recommended by Dr. John N. Ford, of Shady Grove, Ky.

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Dr. Ford considers urine a specifice for snake bite but does not state why he uses whisky internally in connection with it.

M. PÉAN has resigned his chair, having reached the limit of age fixed for the tenure of professorships in the Paris Medical Faculty. On December 24th he delivered a farewell address to a crowded audience in the surgical theater of the St. Louis Hospital.

Dr. EDWIN B. TUTEUR and Miss Emma Grossman, daughter of Mr. and Mrs. A. Grossman, were married on Tuesday evening, February 21st, at the residence of the bride's parents, 3228 Wabash Avenue. Dr. and Mrs. Tuteur will reside at 3553 Prairie Avenue.

DR. F. E. WAXHAM contemplates leaving Chicago on account of the illness of Mrs. Waxham, who has tuberculosis. His beautiful home on Grand Boulevard is for sale. This is a good opportunity for some one wishing a delightful location and a large business.

THE PRACTITIONERS' CLUB held their February meeting at the Leland Hotel, with Dr. H. P. Merriman in the chair. The topic for consideration was the Physician as a Literateur. The discussion was somewhat brief, as there was very little room for dilating on the subject.

Dr. MARY PUTNAM JACOBI has been elected President of the Neurological Section of the New York Academy of Medicine, in succession to Dr. Greame M. Hammond. Mrs. Jacobi is the first woman physician elected to the presidency of a section of the New York Academy.

THE CINCINNATI OBSTETRICAL SOCIETY held its annual session January 12, 1893. Election of officers resulted as follows: President, Dr. Wm. H. Taylor; Vice President, Dr. J. W. Withrow; Secretary, Dr. E. S. McKee; Corresponding Secretary, Dr. J. W. Carpenter; Treasurer, Dr. Geo. M. Jones.

THE BRAIN OF THE LATE GEN. BUTLER is said to have weighed sixty-two ounces. This places it very high in the list of historic and heavy brains. This list, leaving out certain hydrocephalic squaws and laborers, is: Cuvier, 64.5 ounces; Abercrombie, 63; Butler, 62; Spurzheim, 55.06; Daniel Webster, 53.5.

THE AMERICAN ANTIVIVISECTION SOCIETY organized the Illinois branch at Aurora last month, under the State laws, for the protection of animals from cruel experiments in medical colleges and

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elsewhere. They are incorporated without capital stock, and it might be added without the slightest reason for existence.

SWEDISH TURNIPS have been found by Von Baracz best adapted to replace Senn's decalcified bone plates. They are hardened by being kept for four days in a one per cent carbolic acid solution. Experiments showed them to be completely digested in fifteen days, and in one anastomotic operation they proved successful.

UTAH has now an act regulating the practice of medicine and has established a board of six Medical Examiners consisting of four regulars, one homeopath and one eclectic, for its enforcement. This, it is to be hoped, will put an end to the quackery which has been dominant in Utah in the absence of legislative restriction.

Dr. S. V. CLEVENGER has been appointed by the new board of trustees of the Illinois Eastern Hospital for the Insane, Medical Superintendent to succeed Dr. Richard Dewey. Dr. Clevenger brings a large fund of practical experience to the task and in the record made by his predecessor will have an inspiration to do his best work.

DR. WALTER HAY, formerly of Chicago, who died at Annapolis, Maryland, a few days ago, left a will which is unique It reads: "In order to avoid any litigation after my death I publish this testament. I do not own, directly or indirectly, any estate or property of any kind or description whatever, nor do I owe any debt or obligation."

DR. JOHN W. OVERTON of Des Moines, was arrested with four others, February 23, in the act of grave robbing. He has been indicted, but has disappeared. It is probable, however, that the doctor will be on hand when the trial comes off. If Iowa had a suitable law or Des Moines suitable regulations this act would have been unnecessary.

THE NEW YORK ACADEMY OF MEDICINE on January 5 elected the following officers for the ensuing year: President, Dr. D. B. St. John Roosa; Vice President, Dr. Lewis A. Stimson; Trustee, Dr. Arthur M. Jacobus; Delegates to the State Medical Society, Drs. Henry D. Chapin, Hobart Cheeseman, Henry C. Coe, William A. Ewing and Le Roy M. Yale.

THE SECTION ON LARYNGOLOGY AND RHINOLOGY of the Pan American Medical Congress is now organized. The President, Dr. E. Fletcher Ingals, of Chicago, has secured a large number of good

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papers for the section and this department of the congress is assured a great success. The Secretary for the United States is Dr. T. Morris Murray, Washington, D. C.

THE NEW YORK LEGISLATURE recently passed a bill for the suppression of tuberculous milch cows. Under the new law the health inspectors of the State are empowered to inspect all the cattle within its boundaries, and to cause any cow found to be suffering from tuberculosis to be slaughtered. The owner will be reimbursed the actual value of the animal by the State.

DR. HOWARD A. KELLY, of Johns Hopkins Hospital, Baltimore, is engaged in collecting statistics of ovariotomy in patients seventy years of age and over. He especially wishes to know whether or not the tumors were monocystic, and whether malignant degeneration was noted. Dr. Kelly will be glad if any physicians having such experience will report cases to him.

GURLT reported to the last German Surgical Congress some interesting statistics of deaths from anesthetics from the observations of sixty operators. His figures as to chloroform and ether, number of narcoses, number of deaths and percentage of deaths are as follows: Chloroform, 94,123 narcoses, 36 death, .00038 per cent; 1 death to 2,614 cases; ether, 9,431 narcoses, no deaths.

IN SEXUAL MORALITY among European nations, the Irish stand at the head with a percentage of illegitimate births of 2.6 per cent; Russians next, 2.8 per cent. Then come in order the Dutch, 3.2 per cent; the English, 4.8 per cent; the Italians, 7.4 per cent; the Scotch and French, 8.2 per cent; the Swedes, Saxons and Bavarians, between 10 to 14 per cent; and finally, and most immorally, the Austrians, 14 per cent.

THE COOK COUNTY HOSPITAL EXAMINATION for Internes resulted in the nomination of E. H. Tinen, Rush; F. A. McGrew, Rush; R. B. Oleson, Chicago Medical; Clausen, Physicians and Surgeons; G. A. Skinner, Rush; T. A. Williams, Rush; T. P. Lindley, Chicago Medical; T. A. Olney, Rush, their standing being in the order in which they are mentioned. The examination for similar positions at the Alexian Brothers Hospital resulted in the selection of G. F. Zaun, Rush; F. G. E. Ehrmann, Physicians and Surgeons.

THE JOINT MEDICAL COMMITTEE ON ENTERTAINMENT for the World's Columbian Exposition, at a meeting last month, endorsed the project of Messrs. Charles Truax, Greene & Co., to establish

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headquarters with a bureau of information and service, and resigned into the hands of the Practitioner's Club and the South Side Medical Club the task of formal entertainments. The foreign secretaries appointed by the original committee will be requested to coöperate with these two local organizations in the manner originally contemplated.

BEWARE of a man calling himself Julius Benedix, who has called upon a number of physicians, bearing papers sealed and signed by various lodges, and offering for a membership fee of four or five dollars to appoint the physician an examiner for the various organizations. Those who have taken memberships at this price, and for this purpose, have not received a second visit from the gentleman in question, nor their commissions as examiners. This is a somewhat old-fashioned trick and has been worked upon the profession in Chicago in one form or another for a considerable number of years.

The New York Therapeutic Review, edited by Paul Gibier, A. M., M. D., of Paris, and published quarterly by the Pasteur Institute, New York, has made its initial appearance. The introductory notice states that the journal is to be conducted especially on the lines indicated by Pasteur, Koch, Brown-Sequard, Lister and others. The January number of the *Review* contains articles by Drs. Paul Gibier, H. Holbrook, Curtis, and Egbert H. Grandin, and a brief periscope. The scope of the journal is much more narrow than its title indicates, as it is apparently the organ and appears in the interest of the New York Pasteur Institute and Sanitarium.

NEGRO PHYSICIANS are to have a medical journal. In the prospectus Dr. M. Vandahurst Lynk announces: "The rapid increase of the educated Negro physicians of America is very gratifying. It has in it a glow of significance, and shows that the negro intends to contribute his share to scientific medicine. But for them to attain the highest degree of development and become giants in the Æsculapian fold, it is very necessary that they should have some medium through which to communicate, exchange ideas, and inculcate a spirit of original research and investigation. Looking to this end I shall begin the publication of a monthly medical journal.

THE BRITISH GYNECOLOGICAL SOCIETY, at a meeting held on January 12th, elected the following officers for the ensuing year; Honorary President, Robert Barnes, M. D., F. R. C. P.; President, F. Bowreman Jessett, F. R. C. S.; Vice Presidents, Dr. G. Apostoli;

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A. H. Freeland Barbour, M. D.; Francourt Barnes, M. D,; F. C. Batchelor, M. D.; Robert Bell, M. D.; R. C. Benington, M. D.; Vincent Dickinson, M. D.; W. A. Dingle, M. R. C. S.; W. H. Fenton, M. D.; James Murphy, M. D.; H. A. Reeves, F. R. C. S. Ed.; Heywood Smith, M. D.; R. T. Smith, M. D.; W. J. Simply, M. D.; H. P. C. Wilson, M. D.; Treasurer and Librarian, J. A. Mansell Moullin, M. D.

THE STRAFFORD COUNTY INSANE ASYLUM, four miles from Dover, N. H., was burnt to the ground on the night of February 9th, and forty-four of the inmates were killed. The building, which adjoins the county workhouse, was a two-story wooden structure, 130 by 35 feet in size, with a large yard on each side enclosed by a high fence. It contained fifty small rooms or cells, all of which were locked at night. When the fire was discovered the doors were broken open, but the fire spread so rapidly and the arrangement of the building was such that only four of the inmates got out in safety. The high fence surrounding the building prevented the escape of at least one of the unfortunates.

THE NEW YORK STATE COMMISSION IN LUNACY has recently passed a resolution recommending that "the boards of managers of the several State hospitals afford to medical colleges situated in their vicinity, as well as to practicing physicians who may desire to avail themselves of the privilege, such facilities for the clinical study of mental diseases as in the judgment of the medical superintendent may be deemed wise and proper." As it is only in public hospitals that the required material may be found, it is to be hoped that this recommendation will be favorably received by the managers of the various State institutions, and that thus the knowledge of mental diseases may become more diffused among the new generation of medical men than it has been hitherto.

The Woman's Medical Journal is the latest aspirant for professional favor. It is a monthly journal published in Toledo, Ohio; edited by Drs. E. M. Roys-Gavitt and Claudia Q. Murphy. The salutatory is a model of its kind. Its editors state that the journal enters the field of medical journalism on its merits, that it will be a purely regular journal and will print news and notes of interest to the masculine as well as to the feminine part of the profession. It will also do all in its power to reflect the sentiment of women practitioners and to enhance their interests so far as in the power of journalism lies. The first number of the journal carries out well the promises made by its sponsors; but it is to be hoped that the

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management will not persist in advertising proprietary articles, which are in reality patent medicines.

THE INTERNATIONAL CONGRESS OF MEDICINE announces through its American Secretary, Dr. A. Jacobi, of New York City, its preliminary programme and regulations. Those wishing to participate in the Congress should send their applications for membership, at an early date to Prof. L. Pagliani, Rome, Italy, with a fee of $5, and it is requested that they inclose a visiting card bearing the name and address, that correct spelling may be facilitated. Papers must be announced at headquarters on or before June 30th, and abstracts must be received there on or before the 31st of July. Arrangements have been made for special traveling rates across Europe to Rome, and apparently all preparations are being made to offer the members of the Congress every opportunity to see Italy under the most favorable circumstances. Dr. Jacobi offers to forward application and fees for those who may so instruct him.

THE COOK COUNTY REGULAR MEDICAL AND SURGICAL STAFF, as appointed by the Cook County Commissioners, was organized February 16, Dr. J. B. Murphy being elected President and Dr. A. I. Bouffleur, Secretary. The staff is made up as follows: Surgeons—E. W. Lee, J. Frank Lydston, O. J. Price, Elmer E. Babcock, J. Frank, Rudolf Menn, Francis R. Sherwood, A. I. Bouffleur, W. A. D. Montgomery, J. B. Murphy, A. E. Hoadley, Christian Fenger, A. J. Baxter. Physicians—James B. Herrick, Edward Bowes, A. M. Stout, Wm. L. Copeland, Julius H. Hoelscher, Ira E. Marshall, Geo. Snitzel, J. J. Quirk, C. E. Greenfield, N. H. Church, W. Harrison Ballard, Clarence E. Earle, C. F. Perkins, Camillo Volini, R. H. Babcock. Neurologists—Sanger Brown, D. R. Brower, Archibald Church, H. N. Moyer. Gynecologists—T. J. Watkins, Denslow Lewis, Fred Formaneck, Leonard St. John, Carl Sandberg, Ferdinand Henrotin. Oculists—C. D. Wescott, Casey A. Wood. Pathologist—L. Hektoen.

Dr. WIBORG, one of the medical inspectors of the City Department of Health, has furnished us some interesting statistics as to the number of immigrants arriving in Chicago, their nationality, trades, destination, etc. In the four months from September 15, 1892, to January 15, 1893. Dr. Wiborg inspected 7,425 immigrants, about one-third of whom remained in Chicago. About one-half of all immigrants arriving in Chicago came through New York; the balance are distributed between Philadelphia, Boston, Baltimore

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and Canadian ports. As to nationality, 3,039 were Germans, 1,558 Swedes and Norwegians, 688 Poles, 393 Bohemians, 294 Dutch, 270 Italians, 220 Danes, and the balance distributed among eighteen European and African countries. More than one-half of the Swedes remain in the cities, the Norwegians, as a rule, are farmers; the Finlanders go to the northern peninsula of Michigan; the Dutch are almost to a man florists, and remain near Chicago; the Bohemians and Poles remain in Chicago and Milwaukee, the Italians almost without exception locate in the Italian quarter of Chicago.

THE BUREAU OF MILK INSPECTION OF CHICAGO is now in operation. Its inspectors are collecting about 150 samples daily, in all of which the amount of fat and milk solids is determined. A very careful examination has been made of milk received in Chicago from the country, and the valuable and interesting fact has been determined by a large number of analyses of samples that less than two per cent were below the standard adopted, namely three per cent of fats and twelve per cent of milk solids, which shows that deterioration in the quality is largely dependent upon local dealers. Delivery wagons are now being inspected, and the department invites the public to submit suspected samples for chemical test, and requests that the name of the retailing milk man accompany such samples. This new department, is under the management of Prof. E. B. Stewart, and fortunately, is practically a non-political office. It gives promise of accomplishing a great deal for the health of the community. It is proposed in connection with this department to establish a well-equipped laboratory for the examination and analysis of food products generally, to prevent adulteration and the retailing of unsuitable articles. All physicians should give it their hearty support.

PEROXIDE OF HYDROGEN AS A REMEDY IN DIPHTHERIA was very seriously called in question by Dr. Jacobi, before the American Pediatric Society last spring, as he asserted that in some cases it seemed practically to cause the diphtheritic trouble and was an irritant. He paid his respects particularly to the preparation of Marchand, which practically is the one used throughout the United States, and has called forth in turn considerable interesting literature from the Drevet Manufacturing Co., who put Marchand's preparation upon the market. He even questions its germicidal properties, which have been so generally affirmed by independent and capable observers throughout the world. The statements of

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Dr. Jacobi are apparently too broad and without proper foundation; they certainly do not meet with confirmation in the experience of very many equally shrewd observers. A recent case in this city of a severe nature was very successfully managed by an almost unlimited application of the peroxide, thirty-eight pound bottles being used within a few days, the atmosphere being constantly charged with the peroxide of hydrogen, and it was also used as a throat and nose spray with apparently the best results. Certainly had it been injurious this amount would have demonstrated its irritant qualities. Marchand offers, in an open letter to Dr. Jacobi, to submit his own throat for a number of consecutive days to a spray of twenty-five per cent of his peroxide of hydrogen instead of the ordinary five per cent which is usually dispensed, and proposes if any irritation appears or diphtheria is induced, as Jacobi claims may be the case, that he will publicly acknowledge the position of the learned doctor. We trust that his proposition may be accepted in the proper spirit, and that we may all be informed of the results.

Therapeutic Memoranda.

THE TREATMENT OF SYPHILIS.

Accepting the dictum that in the treatment of syphilis with mercurials it is the mercury that constitutes the active agent, McNamara (*Lancet*, No. 3617, p. 1438) maintains that the best preparation to use is that which in safe, unirritating doses contains the largest proportion of the metal. This indication he has found to be best met by mercury with chalk, of which an adult may take a grain or two grains three times a day, with a grain or more of the powder of ipecac and opium if there be diarrhea. The treatment should be continued for some months.

THE CREOSOTE TREATMENT OF PULMONARY TUBERCULOSIS.

Albu (*Berlin. klin. Woch.*, No. 51) concludes that creosote produces no direct influence upon the tuberculous process in the lungs, although it is a useful remedy in the symptomatic treatment of the disease—probably better than any other. In most cases it acts as a good expectorant; in some cases as a stomachic; as a rule, it appears to exercise a tonic influence. In a series of experimental

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investigations it was found that no change in the virulence of the sputum manifested itself in persons that were taking creosote in full doses.

LOSOPHAN IN DERMATOLOGY.

Losophan, as stated by several recent observers, has proved to be of the highest value in mycosis microspora, or facial mycosis tonsurans, in which it gave prompt and decided cures. In folliculties barbae, or sycosis vulgaris, losophan in one per cent ointment or solution gave excellent results. In some cases two and three per cent compounds were employed to advantage. Some of the cases, which were said to have long resisted other treatment, were cured in from 18 to 20 days. The remedy is an energetic stimulant, but does not irritate except the quantity used be too large. In pityriasis versicolor complete cures were made with a few applications with a brush of one and two per cent solutions. The same results are reported from the use of losophan in eczema siccum.

ARSENIC AS A PROPHYLACTIC.

Governed by a statement that persons taking arsenic are insusceptible to vaccination, Bryan (*Brit. Med. Journ.*, No. 1665, p. 1187) employed the drug as a prophylactic in scarlet fever, and believes that he has by this means checked an epidemic. In a family in which one child had severe scarlatina, arsenic was given to the other two children, who were not attacked, though they continued to be about the patient until she died, after three weeks. In another family, a boy, seven years old, had scarlet fever, but the four other children, from three to eleven years old, did not contract the disease, while the mother aborted, but was not herself attacked by the disease. There is evidence that arsenic is valuable also as a prophylactic against diphtheria and influenza. Bryan gives gr. $\frac{1}{10}$ of arsenious acid, or mij. of official solution of potassium arsenite, three times a day for the first week, and afterward twice a day.

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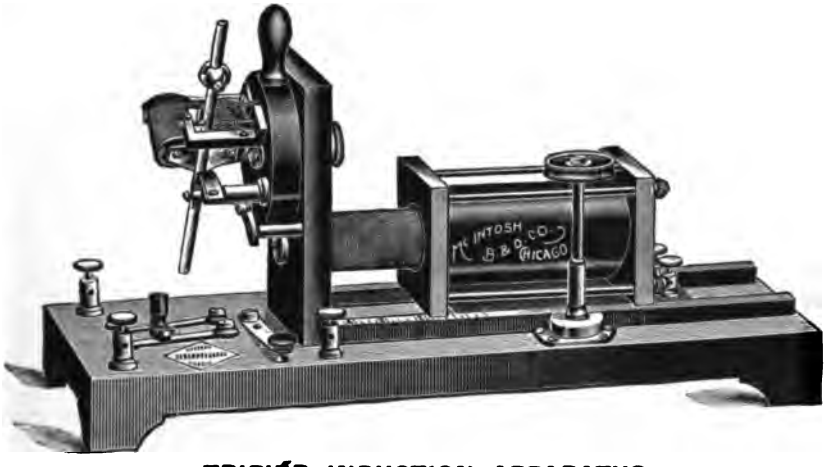

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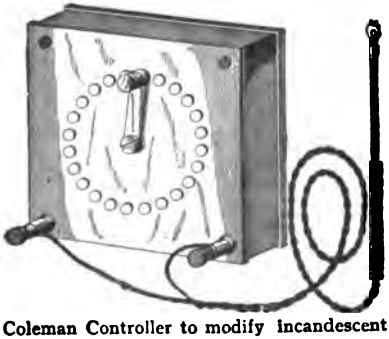

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THE
CHICAGO MEDICAL
RECORDER
APRIL, 1893.

Original Articles.

THE DIFFERENTIAL DIAGNOSIS AND THE PROGNOSIS OF POTT'S DISEASE.

By JOHN RIDLON, M. A., M. D.

LECTURER ON ORTHOPEDIC SURGERY IN THE NORTHWESTERN UNIVERSITY MEDICAL SCHOOL; PROFESSOR OF ORTHOPEDIC SURGERY IN THE POST GRADUATE MEDICAL SCHOOL; AND ATTENDING ORTHOPEDIC SURGEON TO ST. LUKE'S FREE HOSPITAL, CHICAGO.

DIFFERENTIAL DIAGNOSIS—In considering the differential diagnosis of Pott's disease, it is convenient to take up separately the three anatomical divisions of the spine.

Chronic disease of the cervical spine is rarely confounded with any disease or condition other than torticollis. Spondylitis is a chronic affection, and all acute diseases may be excluded because of their acuteness. Symptoms arising immediately upon the receipt of an injury are, and should be, regarded as traumatic, but if from any reason they are not recovered from and become chronic, they then are clinically, and generally also pathologically, truly cases of Pott's disease. Malignant disease of the cervical vertebrae is exceedingly rare; when present it presents the same symptoms as will be detailed in considering the dorsal region.

The position of the head in Pott's disease of the cervical spine is often the same as in torticollis; and as in torticollis there may not for some time be any pain or other symptom of bone disease present beyond the deformity. Despite the likeness of the two conditions, the diagnosis can often be made at sight. When the patient attempts to hold his head erect in torticollis, the shortened

Read before the Chicago Medical Society.

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sterno-mastoid muscle stands prominently out, and the mastoid process being brought nearer to the sterum the chin points away from it. In Pott's disease with the head in a like position, one or

Fig. 1. Torticollis.

both sterno-mastoid muscles stand prominently out, acting as stays to immobilize the affected vertebrae; if only one sterno-mastoid muscle is prominent, it is that on the side toward which the chin points. A further examination will confirm any

Fig. 2. Cervical Spondylitis.

diagnosis made at sight. In torticollis, all movements of the head are free and normal, except such as would require an elongation of the shortened muscle; in cervical Pott's disease every motion of the head is more or less restricted, or in some cases totally abolished.

In the dorsal region, Pott's disease is not infrequently mistaken for lateral curvature. This occurs in the early stages of

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Pott's disease when some lateral deviation is a very constant symptom, and in later cases where the tubercular process is of the dry form, and the foci numerous and distributed somewhat laterally in the vertebral bodies. It is often difficult, and for some time may be impossible to differentiate with certainty between these

Fig. 8. Pott's Disease Simulating Lateral Curvature. Extreme Deformity.

conditions. Given a deformity which may be either Pott's disease or lateral curvature, the history must be taken into consideration, and weighed with the other symptoms. Lateral curvature is rare in boys; it is usually found in girls between the ages of twelve and sixteen years—Pott's disease commencing at this age is rare, except as it can be traced to some well recognized injury. In Pott's

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disease distant pain is the rule; in lateral curvature pain is never present except in old and terribly deformed cases. The chief point in the diagnosis will be found in the rigidity of the curvature; the curves of Pott's disease become rigid at once, and often present as well marked involuntary muscular spasm as is found in hip disease; the curve of lateral curvature becomes rigid only after it has existed for many years. If, then, the history can be relied upon that the deformity is a comparatively recent one, a flexible curve positively indicates lateral curvature, and a rigid curve points to Pott's disease. In doubtful cases the treatment will clear up the diagnosis. Forcible manipulations and exercises benefit lateral curvature, but render the deformity of Pott's disease more pronounced and more rigid. Immobilization fails to benefit lateral curvature, but allays the spasm and reduces the deformity of Pott's disease.

Malignant disease of the dorsal spine cannot be diagnosticated with certainty at an early period. It may be suspected if the symptoms appear in one predisposed to cancerous affections, and presenting the general appearances which so often accompany malignant disease wherever located: Commencing, Pott's disease is rare except in childhood, and malignant disease of the spine is rare except in advanced life. Pain is very severe and comes on long before the deformity appears in malignant disease; while it may be absent altogether in Pott's disease, and in any case rarely comes on before a distinct deformity has appeared.

In the lumbar spine Pott's disease is closely simulated by disease at the sacro-iliac joint. In young children sacro-iliac disease is usually associated with Pott's disease in the lower lumbar region, and an early differential diagnosis may not be possible. Sacro-iliac disease existing alone is a disease of early adult life, being most frequently found in men from sixteen to thirty years of age. In Pott's disease, motion in the lumbar spine is restricted in every direction; in sacro-iliac disease at an early period it is restricted only in the direction of backward bending, later, it may be restricted in all directions, but by that time other symptoms will point positively to the sacro-iliac joint, namely, tenderness on pressure over the joint, and on crowding the wings of the ilia together, and often there will be found a kyphosis, or a partial displacement of one of the bones upon the other, and palpation by the rectum will reveal swelling or fluctuation.

Before the appearance of any deformity, lumbar Pott's disease may be mistaken for hip disease, inasmuch as contraction of the psoas muscles causes flexion of the thigh and induces a limp

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in walking. The differentiation, however, can be readily made. If the thigh be flexed sufficiently to relax the psoas muscle, all the hip motions will be found to be free and normal except extension, while in hip disease all will be found more or less restricted.

A strain may give the early symptoms of Pott's disease; for a strain left untreated in a tubercular subject may become a true tubercular spondylitis, but a strain should give distinct history of the injury, and thus clear up the diagnosis.

A rachitic spine closely resembles the "rounded curvature" of Pott's disease, the deformity is not infrequently a rigid one, and psoas contraction may also be present; but a rachitis spine will be found only in young children, and the child will nearly always pre-

Fig. 4. A Rachitic Spine.

sent other evidences of rachitis. The mistaking of a rachitic spine for Pott's disease will be of little harm to the patient since both require a rigid supporting brace.

The typhoid spine presents many of the charateristics of Pott's disease, but there is tenderness to pressure, and to lateral and forward bending, there is no psoas contraction, it always follows typhoid fever, the onset is sudden, and the recovery rapid.

The hysterical, irritable, or hyperesthetic spine is more frequently mistaken for Pott's disease than any other affection. There is pain, tenderness, and often a rounded posterior curvature, and these generally comprise the sum total of the symptoms of

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Pott's disease as it may exist in the mind of the general practitioner. The pain, however, is local, while that of Pott's disease is referred to some distant point; the tenderness to pressure is as aggravated to the gentlest contact as to firm, deep, pressure, while on the

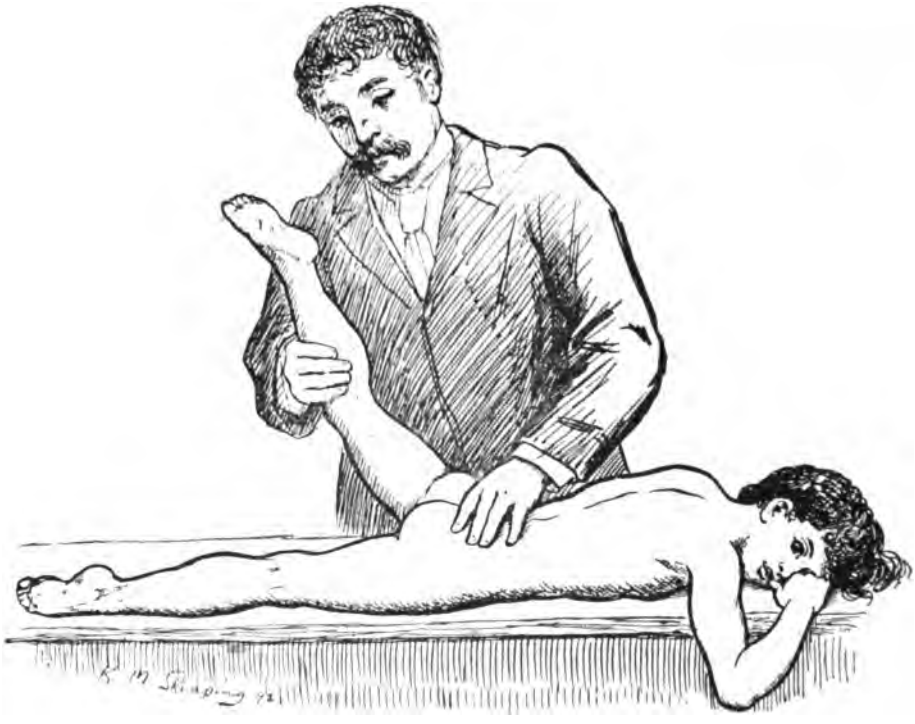

Fig. 5. Testing for Psoas Contraction.

other hand in Pott's disease there is no tenderness to pressure except it be due to easily demonstrable abscess or a tubercular focus posterior to the spinal canal—a most unusual location. The spine may be rigid to rough handling, but, when examined with gentleness normal freedom of motion will be found. These irritable spines almost invariably are found in young women who present other hysterical manifestations, and there is often a history of recurrent attacks covering a period of some years.

In closing these remarks on differential diagnosis, I would emphasize two points: First, in Pott's disease, motion at the point of disease is restricted in all directions; and, second, tenderness to pressure over the spine is not symptomatic of Pott's disease.

PROGNOSIS:—The prognosis must be considered under four

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headings: as to life, as to the complications, abscess and paraplegia, and as to the deformity. As to life: Although Pott's disease is a most prolonged and serious disease, the prognosis as to life is remarkably good; only about eight per cent die of those receiving proper nursing and treatment. In these few the cause of death is invariably due to tubercular meningitis or general tuberculosis in which the meningeal symptoms play a most prominent part.

The abscess of Pott's disease, if uninterfered with, rarely causes trouble. If the area of bone disease be efficiently immobilized the abscess, in about half the cases, disappears without coming to an opening. In the remaining cases it bursts, discharges for a longer or shorter time, and closes. Treated by aspiration and the injection of the iodoform and glycerine mixture, the cure is hastened in a certain number of cases; in other instances nothing seems to be gained by the procedure, and in a few cases a true suppurative process is grafted on to the tubercular inflammation. Treatment by incision, scraping, and drainage in pure tubercular abscesses, untainted with septic infection, rarely aids the cure in the slightest, and greatly adds to the risk from general tubercular infection and from septicemia.

The paraplegia, which occurs in a considerable number of cases of upper dorsal Pott's disease, though rarely in cervical and lumbar disease, need cause little anxiety. Rarely is the paralysis due to pressure of bone, or to tuberculosis of the cord itself. The acuteness of the angle of deformity bears no relation to the paralysis, since we not infrequently see the paralysis pass off while the deformity continues to increase. Cases of paraplegia from bony encroachment invariably terminate fatally, unless the pressure be relieved by operative interference. Cases in which the tubercular inflammation has invaded the cord itself always die. In the vast majority of cases the paralysis is due to a peripachymeningitis, and the prognosis is good, provided the patient can be kept recumbent and the area of disease immobilized. Relapse may occur, but ultimately the paralysis is fully recovered from.

The prognosis as to deformity and function depends upon the location of the disease and the amount of consolidation present when treatment is commenced. If consolidation is not already present, deformity can be fully corrected in the cervical spine, and normal function regained. In the dorso-lumbar region—tenth dorsal to third lumbar inclusive—the deformity can be somewhat reduced, and at times in young children wholly effaced. Some

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rigidity usually remains, but in the very young, if the deformity is fully corrected, full motion may be regained. Disease in the upper dorsal region invariably results in some deformity before a positive diagnosis is made, and this as a rule, increases somewhat during treatment. Disease at the fourth and fifth lumbar vertebrae must be treated with complete recumbency for a long period if deformity would be avoided: when, however, deformity has occurred, it cannot, as a rule, be remedied. The prognosis as to deformity, wherever the disease is located, depends very much upon the time of making the diagnosis, and the ability to carry out an ideal line of treatment. If the disease can be diagnosticated before deformity has occurred, and if proper treatment can be persistently carried out, deformity may be prevented in all cases and the duration of the disease greatly lessened.

VENETIAN BUILDING.

IS KYPHOSIS CORRECTIBLE?

BY WALLACE BLANCHARD, M. D., CHICAGO.

The One question of paramount interest, which has been presented is, "Can Kyphosis be corrected?"

One has only to note the number of humpbacked people he meets in an hour's walk to appreciate the gravity of this question.

Let me present it in what would seem a fairly good shape. Can the majority of cases of Pott's disease of the spine presenting a marked condition of humpback, if taken in the first year or two of progress, or before ankylosis has occurred, be brought by any treatment at present in use to a condition of health with a normally straight spine and mobility, nearly or quite unimpaired.

The plaster jacket has proved such a dismal failure and has accomplished so little, even in the hands of Dr. Lewis A. Sayre, that I found at the last meeting of the American Orthopedic Association that there existed a general distrust of the utility of any treatment whatever except in retarding to some slight extent the progress of the disease.

The confidence in the Sayre plaster jacket had been so great, and the results proportionately so bad, that it seemed to me that our eastern friends, when the subject was mentioned, could only

Read before the Chicago Medical Society, March 6, 1893.

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sit down in gloom and despair, and yet the question can be answered in the affirmative, and this is my procedure.

After a stretching process has been practiced quite thoroughly for two or three days, the patient is laid with body bared in a horizontal position, face downward, on a table, with the chief supports in the shape of thick pads at hips and shoulders, to allow the body between to settle downward and thus in some degree correct the curvature. Longitudinal extension and counter extension are now applied as strangely as possible without inconvenience to the patient. A strip of thin bandage is passed over the prominent spinous process and the ends dropped perpendicularly downward

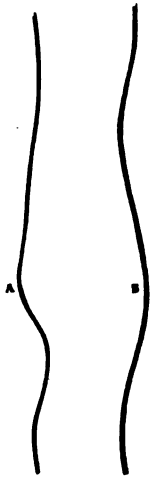

Fig. 1. Two strips of soft iron showing posterior outline of spinal column of this case. The first taken at outset of treatment shows kyphosis at "A," and the second, taken three years later, shows the deformity entirely corrected.

past the patient's sides and through two narrow slots previously cut in the table and given to an assistant who will make a steady traction upon them. When all these forces may be said to have reached a climax, and the spinal column is in the best attainable condition, a plaster of Paris impression is taken of the back. If this mould be compared with a plaster jacket made on the same patient while simply suspended, as is practiced by most eastern and European orthopedists, it will show an improvement of at least forty or fifty per cent in the deformity. I have frequently removed a plaster jacket applied during suspension, that has shown a well-marked deformity, and taken on the same patient a plaster mould, as above described, in which no trace of kyphosis

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could be seen. In the impression a plaster cast is made quite thick and strong. Now soak a piece of "skirting" (a form of sadler's leather dressed without oil and very stiff) in warm water for a

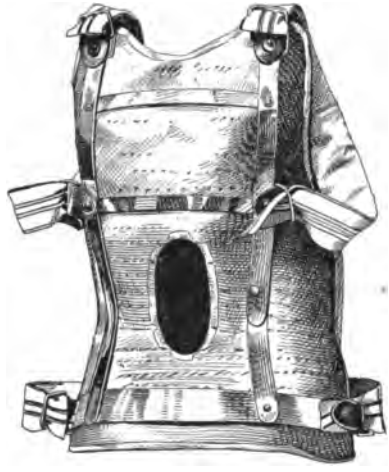

Fig. 2. Temporary splint worn three months.

day. Then bind it firmly to the cast, using at least thirty feet of small rope for the purpose. The leather will adjust itself to every curve of the cast. When it is dry rivet steel straps on so as to

Fig. 3. Permanent splint worn two years.

support it best. Line the inner surface with chamois, and cut a fenestrum of size sufficient to obviate pressure at the point of disease. To each side sew an apron of light, pliable leather, so that it

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may be laced tightly in front. Lastly attach two well-padded shoulder straps to be buckled over the shoulders. Be sure that the splint extends high enough above the shoulders that there shall be no pressure downward.

When this back splint is applied the patient is placed into nearly the same position as when the several methods of traction were used upon the table, with a leather shell back, which fits accurately every contour without localized pad pressure on the back to cause abrasion and ulceration.

Put the patient into continuous and uninterrupted window sash-weight extensions applied to chairs, bed and perambulating gallows.

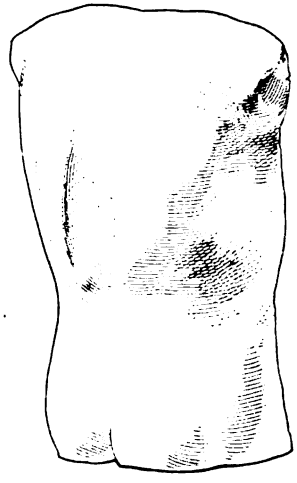

Fig. 4. Shows the cast of a case of spondylitis on which this splint is made as a shoe on a last.

If the deformity be very marked, and only half obliterated in the first plaster mould, after two or three months, a second mould should be made with continued strong traction, and in this it will frequently be found that the kyphosis has entirely disappeared. With this new mould a new splint should be made and applied.

Case —, child aged five years. Six months after a severe fall developed spondylitis with marked kyphosis. Locomotion was impossible except on its hands and knees. The first splint, which I here present, shows in its contour the great deformity that existed even under the best conditions of extension, that I could produce. But look at this second splint made three months after from a mould of the same child. Observe how the shape of the back is changed and the hump disappeared. After two years of this

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splint with uninterrupted extensions in bed and chairs and out of door exercise in the perambulating gallows this patient was well without the least sign of deformity.

It is friction that destroys the bone, and the treatment here given is intended to relieve as far as may be, both movement and pressure, the two factors of friction. Perhaps in this sense it is not a solecism to say "Put the spine to bed, and send the patient out of doors to exercise in the fresh air." By so doing you will correct the kyphosis, strengthen and develop the muscular power of the patient, and in time discharge him well and undeformed; indeed, I think this should be the rule in cervical and dorsal spondylitis, but lumbar Pott's disease is not as amenable, for obvious reasons, to any treatment.

34 MONROE STREET.

PYOKTANIN IN DIPHTHERIA.

BY E. J. DOERING, M. D.

PRESIDENT CHICAGO GYNECOLOGICAL SOCIETY, ETC.

Pyoktanin ("Puskiller") to quote from *Merck's Bulletin*, is the name given by Prof. J. Stilling, of Strasburg University, to the groups of colorific substances, derived from coal tar, which he found the most efficacious of all the pigments he tested with regard to their bactericidal action. These groups of pigments are so far represented in the Materia Medica by the following varieties:

Blue pyoktanin, or what is always meant and understood by the simple term pyoktanin, unless denominated to the contrary.

Yellow pyoktanin, often preferred to the above in ophthalmic and cutaneous diseases on account of its milder action, or from the colorific effect of the blue variety, and ethyl pyoktanin.

Pyoktanin has been introduced to the profession little more than a year, but the literature is already quite extensive as to its use in wounds, ulcers, burns and other minor surgery, in ophthalmology and in throat affections. My own experience is limited to its use in diphtheria and allied diseases, and hence I shall only touch upon the literature referring to these affections. In the July number, 1892, of the *Memorabilien of Dr. Betz, of Heilbronn, Germany*, appeared a valuable article on the treatment of diphtheria, by Dr. Hofrath C. Hoering, of Stuttgart, Germany, a special-

Read before the Chicago Medical Society, March 20, '93.

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ist in the diseases of children. After a review of the treatment pursued since 1864, and the results obtained, he goes on to say that since April, 1892, he has treated all his cases of diphtheria with pyoktanin, locally. He used the remedy in a three per cent solution, drying the affected parts first with absorbent cotton and then applying the solution on a cotton wad. He found no unpleasant results, the offensive odor disappeared, the pains in the ears and in swallowing rapidly subsided, even after the first application of the remedy, the exudate rapidly disintegrated and early convalescence ensued in all but two of the fifteen cases reported in detail. In the two fatal cases the remedy was not applied until the very last stages of the disease, at which time they first came under his observation. The detailed account of the cases is very similar and I will translate only one of the twelve cases which recovered, as well as the two fatal cases reported, which are also interesting on account of the ages of the patients.

CASE III. Mary P., a delicate child, ten years of age. First seen on the twenty-fifth of April, 1892, with extensive diphtheria exudate on both tonsils. Pulse 125, temperature 104°. First application of the pyoktanin; lime water for gargling; cold compresses around the throat. On the twenty-sixth day, the day following, no extension of the exudate; pulse 115, temperature 102°. Second application of pyoktanin, continuation of gargling and compress. On the following day improvement in all of the symptoms, and the recovery of the child in one week.

CASE VI. Eugene H., aged one year and four months; first seen on May 1, 1892. Has been suffering with great dyspnea for two days. Find stenosis of the larynx and the whole throat full of a confluent mass of diphtheritic membrane. Pulse 160; temperature 102°. Faint respiratory murmur over the entire left lung. Prescribed salicylic acid in malaga wine, inhalation of lime water and application of pyoktanin. Prognosis fatal. May 2 patient breathes a little easier; throat better. Repeated the pyoktanin application. May 3 throat shows decided improvement, but the stenosis of the larynx has increased. Dullness on percussion over left lung; child unable to swallow. Applied pyoktanin and performed tracheotomy. Child died the same evening.

CASE XII. Louise K., age ten weeks. Saw patient June 6, 1892. For two days child has had difficulty in swallowing and lost its voice. Find dyspnea, both tonsils and posterior vault of pharynx covered with diphtheritic membrane, also exudate on the uvula and soft palate, purulent discharge from the nares, in

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short, the very worst form of diphtheria. Prescribed internally salicylate of soda, washed the throat and nasal cavity with lime water and applied pyoktanin to the affected portions of the throat. Enemas of beef peptones and wine. June 7 child brighter. Applied pyoktanin. June 8 throat better; dyspnea and difficulty in deglutition the same. Third application of pyoktanin. The throat constantly improved under the daily application of pyoktanin until the 12th of June, when the child died of exhaustion.

From a letter received from Dr. Hoering, dated Stuttgart, February 17, 1893, I take the liberty to quote as follows: From October 16, 1892, till February 17, 1893, I have treated forty additional cases of diphtheria, the majority serious ones, among them a number suffering from stenosis of the larynx—all recovered. I am 55 years of age, not of a sanguine disposition, but on the contrary quite skeptical, but notwithstanding I am frank to acknowledge that I feel much more happy and secure than formerly in treating diphtheria since using pyoktanin. Many of my colleagues, among them Dr. Rehn, the specialist in children's diseases at Frankfurt, have written to me stating the excellent results they have obtained with my method. I intend to publish these forty additional cases as soon as time permits, having been overburdened with work during this very severe winter. I also desire to call your attention to the fact that fresh cases of diphtheria originating in the attendants on diphtheria patients, are promptly cured by two or three applications of pyoktanin. I shall be much pleased to obtain your report to the Chicago Medical Society.

Personally I owe thanks to Dr. Hoering for his valuable paper which induced me to use pyoktanin as a local application in all throat affections during the past six months, with the most gratifying results, to which I will refer later on.

Dr. Jaenicke, of Gorlitz, Germany, reported in the *Ther. Monath.* the results obtained from the local use of a saturated solution of pyoktanin in a number of cases of genuine diphtheria. The false membranes were gently rubbed with a cotton wad impregnated with the solution, until thoroughly stained blue, once every two to five hours, according to how rapidly the blue discoloration disappeared. As a rule, as early as on the second or third day of this treatment the temperature fell to normal, the pains diminished and the appetite returned.

Of course in very advanced cases, where the diphtheritic poison had already been absorbed into the blood, giving rise to

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septic intoxication, the local application of pyoktanin could not save the patient.

In conclusion the author warmly recommends pyoktanin as a remedy in diphtheria, for the following three reasons:

First, it possesses extraordinarily great antiseptic power over Loeffler's bacillus.

Second, because it clings to the pseudo-membranes and the epithelium of the buccal mucous membranes for an unusually long time and thereby exerts a correspondingly lasting antiseptic action.

Third, because it is nonpoisonous.

Louis Fischer, M. D. (*Medical Record* December 17, 1892), has used pyoktanin in fifteen cases of diphtheria which were not only clinically but bacteriologically proven to be true diphtheria.

The method of applying it has been in the form of an aqueous solution of ten per cent directly to the affected parts by means of a glass rod, around which a pledget of cotton soaked in the solution, was used. After each application the cotton was burned to avoid further infection. Five minutes before each application the child received a teaspoonful of bicarbonate of soda dissolved in a tablespoonful of water. The applications were made twice a day for three days, and no other treatment given.

Some cases required its continuation five or six days, and one case needed treatment eleven days. Good wine stimulation and farinaceous diet were always used.

This is reported as a mere preliminary announcement, and the Doctor intends to publish a full report of the cases later on.

W. Pohl, of Berlin, reports nine cases of diphtheria, not selected, treated successfully. He reports in his inaugural thesis the results of the study of the effect of pyoktanin on different bacteria. Putrefactive ones showed the greatest resistance. A solution of the strength of 1 in 2,000, however, stopped their evolution, while a solution of 1 in 1,000 killed them in half an hour. It is found by increasing the proportion of the chemical, that this action is hastened. The rapidity of this action on all other microörganisms is much greater. Janicke (*Fortschitte der Medicin.* 1890, No. 12, p. 460) showed that a total stoppage of development took place in streptococcus with a solution of 1 to 333,000, whereas a solution of 1 to 5,000 killed it in half a minute.

Boggess, again, in the *American Practitioner and News* (No. 174, p. 136) has treated fifty-two consecutive cases without a single death, using it locally in the strength of one to eight and internally

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in two grain doses every two to three hours. Dr. R. P. Lincoln, of New York City, also recommends its use in diphtheria.

In a valuable article on the use of pyoktanin in diseases of the upper air passages, read by Dr. R. P. Lincoln before the American Laryngological Association at its thirteenth annual congress, he says:

"I have applied the remedy in but two cases of unquestionable diphtheria. Both recovered without sequelae. One case was very severe and one only moderately so. In the former, a little girl five years old, the disease began in the right nostril, extended to the left, the membrane gradually involving a part of the pharynx, the whole of the right tonsil and part of the left. Before I used pyoktanin, besides administering internally tonics and chlorate of potassium, I had used locally in the nostrils, one after another, sprays every two or three hours of bichloride of mercury, benzoate of sodium and wine of pepsin, chlorate of potassium, and iodoform. The same had been used in the throat, and here, in addition, a mixture of compound tincture of iodine and carbolic acid. There was great physical depression, but no albumin in the urine. The disease, which must have been present three or four days before I saw the child, continued to increase and extend for three days, when I determined to leave in the nostrils through the night rolls of absorbent cotton saturated with a ten per cent solution of pyoktanin. So much improvement was found the following morning that the remedy was used more freely, and its use extended to all parts involved, with the result that in forty-eight hours all traces of the membrane had disappeared. The other case was an adult, when a strong application started an improvement at once."

"Three cases of diphtheria were treated in the early summer and encouraged me to give the remedy further trial. Its effect on a single instance of membranous rhinitis was, as should be expected, prompt and salutary, the plastic deposit being quickly destroyed and not reproduced after three or four applications."

In a letter from Dr. Lincoln received a week ago he reaffirms his good opinion of the drug and states that he is still using it successfully.

As stated before, since last October I have used pyoktanin in all cases of diphtheria, pseudo-diphtheria and follicular tonsillitis occurring in my practice, and am so well pleased with the results obtained that I feel it my duty to report the same to the profession, as I find by inquiry and letters addressed to nearly thirty of the prominent physicians and throat specialists in this city that

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none of them have ever used it. I will not go into any detailed report of the numerous cases of follicular tonsillitis treated, more than to say that the results were the most satisfactory I ever obtained, in many cases one application of pyoktanin being sufficient to cause a rapid drop in the temperature, and general relief of all the symptoms and a rapid convalescence.

In cases of pseudo-diphtheria, under which head I classify all cases caused by streptococci, the diphtheritic throat of scarlet fever, and all doubtful cases, such for example as were classified by Dr. Casselberry at the last meeting of the American Laryngological Society, the results were generally remarkable, the exudate disappearing so quickly at times that it convinced me of the utility at least, of the unscientific phrase "diphtheritic sore throat," enabling one to make a satisfactory explanation of a rapid convalescence after a guarded prognosis. Nothing has thus far been brought to my attention which acts so promptly, so certainly, so agreeably, as pyoktanin in these cases.

Finally I desire to speak of my personal experience with pyoktanin in five cases of true diphtheria, caused by the Klebs-Loeffler bacilli, in which the clinical diagnosis was certain without the aid of cultures, these cases presenting each a distinct pseudo-membrane, thick, adherent and dark gray in color, odor offensive, the tonsils, posterior surface of fauces, anterior and posterior pillars all involved, swelling of glands of neck, discharge from the nose, and slight albuminuria in two of the cases. I will not report these cases in detail at this time, hoping at a later date to present a tabulated report of a larger number of cases, but will confine myself to the results obtained. All five cases recovered, the youngest, a child two years of age, the oldest a boy of thirteen. Duration of illness from one to two weeks, the treatment consisting in the internal use of iron, stimulants and careful feeding, the application of pyoktanin, constant spraying of the throat with Marchand's peroxide of hydrogen and inhalations of steam by slacking lime and using steam atomizers. It is therefore observed that I did not place sole reliance by any means on pyoktanin. On the other hand I did not begin the use of pyoktanin until the third and fourth day, when the disease was progressing, the patients getting worse and the prognosis becoming more grave. After the third and fourth application of pyoktanin improvement became manifest in all of the cases and continued so until final convalescence. Indeed from careful observation I am convinced that at least two of the cases would not have recovered without the aid of the

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pyoktanin. In one case I injected the drug hypodermically into the affected tonsil, very superficially, of course, and I would suggest that in patients of sufficient age to permit this being done excellent results might be expected to follow. I do not know that this method has ever been tried with methylviolet in diphtheria, but Dr. Felix Baron von Oefele in Bad Neuenahr, Germany, has used pyoktanin by subcutaneous injections in malignant growths, resulting in almost immediate shrinkage of carcinomatous and sarcomatous tissue. It would seem to me that a number of minute punctures into the affected tissues in diphtheria by means of a Siebert syringe would enable a more thorough and lasting application of the remedy than by swabbing alone.

For local application I used a solution varying from three to six per cent in strength, swabbing the throat in a thorough manner from two to four times in the twenty-four hours, according to the rapidity with which the blue discoloration disappeared. No unpleasant results were noted in any case. It is a disagreeable drug to get on one's hands or face, but the stains are readily removed by washing with tincture of soap of the German pharmacopia or a ten per cent solution of castile soap in alcohol.

In conclusion, I desire to express my belief that in pyoktanin we have a most valuable aid in the treatment of diphtheria and infectious diseases of the throat, and earnestly request the members of this society to give the remedy an early trial.

2406 Prairie Avenue.

A SUCCESSFUL METHOD OF TREATING FOLLICULAR TONSILLITIS.

By JUNIUS C. HOAG, M. D., Chicago.

Among the forms of disease most familiar to the physician is that of follicular or lacunar tonsillitis. The symptoms and anatomical features of tonsillitis in general are well known to all. The special characteristic of the follicular form is the presence of cheesy masses which fill up the follicles of the tonsil and projecting upon the surface of the gland give it a punctated appearance. This feature of the disease may, indeed, be marked by the formation of a pellicle composed of the same material as that which fills the follicles and which may simulate the membrane of diphtheria;

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but the removal of this pellicle, which is easily accomplished, will generally enable one to make the correct diagnosis.

The differentiation of follicular tonsillitis from diphtheria may occasionally be attended with difficulties, but it is certainly not so as a rule; and yet we know that many physicians habitually inform their patients that they are suffering from diphtheria when in truth it is merely a question of tonsillitis. To this fact, doubtless, many of the marvelous cures of diphtheria may be ascribed.

To my mind the most remarkable feature of follicular tonsillitis is the disproportion generally witnessed between the comparatively innocent appearance of the tonsil and the comparative severity of the constitutional symptoms. But a few years ago I made an observation which to me seems equally remarkable and one that possesses very important bearings. This observation contains the kernel of my present remarks, and is this: The removal of the cheesy plugs which occlude the lacunae and follicules of the tonsils is uniformly followed by a very marked amelioration of all the symptoms of the disease.

The material which accumulates in the lacunae consists of masses of fibrinous lymph, mucus and epithelial cells swarming with micrococci, the commonest form being a streptococcus. My explanation of the severity of the symptoms of the disease is that a toxemia is produced; and conversely the removal of the source of the poisoning results in prompt relief to the patient.

My treatment is easily described. When I find a patient with the high fever and sore throat of follicular tonsillitis, I spend fifteen or twenty minutes in removing the exudate of the tonsils. I do this with the aid of three little instruments, viz: a small spoon such as is used in clearing out the meatus of the ear, an ordinary silver probe wrapped with a small piece of absorbent cotton dipped in peroxide of hydrogen, and a small forceps with which to seize sticky masses not easily removable with the other instruments. My usual directions are to make frequent applications of peroxide of hydrogen to the tonsils by means of a brush, in addition to which I direct the use of the ordinary gargles and appropriate constitutional treatment. But my main reliance is in the topical treatment as described and after a single séance with the patient I confidently expect to find a very marked improvement within a few hours and am rarely disappointed therein. This treatment is usually repeated once or twice.

I have treated many patients in this manner and have been greatly satisfied with the results obtained. Recently I have looked

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over as much of the literature of the subject as was conveniently accessible and failed to find any similar treatment described. By my method I am convinced that I am enabled to shorten the duration of the disease very materially; indeed my patients get well in half the time required by former treatment. I therefore recommend this procedure to you in full confidence that you will be pleased with it.

58 FORTY-THIRD STREET.

NONINTUBATION OF THE TRACHEA AFTER TRACHEOTOMY.

By Dr. FRANK STAHL.

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My conclusion from experience is that one of the causes of pneumonia, and perhaps the most important one in a great many tracheotomized cases, is because of the continued presence of the canula in the trachea inducing constant irritation from its influence as a foreign body within highly inflamed sensitive tissues and the constant local friction between the tube and canula; that this irritation remains latent for a longer or shorter period, suddenly increases and grows to such a degree as to arouse, usually already existing in a mild form, severe inflammatory processes, rapidly extending, ushering in the fatal complications, capillary bronchitis, broncho-pneumonia; these in their turn exhaustion and heart-failure.

This being true, how best prevent or reduce the danger from this source? Remove the cause. When possible, do not use a canula, or when so doing, as has often been suggested, and still is, remove the canula at the earliest possible moment.

The case I present you this evening was treated upon this plan. At that time she was four and one-half years of age; had been sick with diphtheria some ten days before I saw her.

Calling about 6 P. M., I saw the case for the first time, and found the little one laid out upon the bed with the watcher at her side waiting for her to draw her last breath; patient was in a state of syncope.

Receiving permission to tracheotomize, I placed her upon a table, permitting the head to fall over the edge, operated without anesthesia under candle light. Patient very slightly reacted from the pain of the operation, so that notwithstanding I was

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alone save the mourner, who held her feet and arms, I was able to make the opening without any difficulty. Not knowing previously of the case, I had come unprepared for the operation other than my ordinary pocket case.

As soon as possible I sent for my canula; in the meantime, however, I held open the artificial rima by means of my rat-toothed forceps, simply from their own force. I was surprised to notice that holding open the fissure with my forceps seemed to afford just as much relief as when the canula was introduced, and I could not avoid remarking that the paroxysm did not continue so long as is usually the case with the canula.

This I attributed to the absence of the greater irritation of the canula. After some time I introduced the canula; examination of the lungs revealed an acute bronchitis, as is general in such cases.

Calling four hours later, found patient doing quite well, yet quite restless.

My third call was twelve hours after the operation, the case was in the hands of a skillful nurse. He reported that during the previous few hours patient had been growing more restless, the temperature had risen a point and the cough was increasing; these meant pneumonia ultimately.

Now the question was, is the canula the irritating influence? Permit it to remain meant death from pneumonia; remove the canula and it would give the child another opportunity. I so decided, and removed the canula, depending upon the nurse and some improvised retractors to keep the rima open.

It was gratifying to notice that after the removal of the canula the child grew easier, the cough also, later the temperature came down; the general condition soon improving very much.

I must admit that I was somewhat timid as to the outcome of this early removal at this period, especially as to maintaining the trachea patent and clear, but again was surprised to learn that even less trouble was caused than when the canula was inserted.

A feather was not used; absorbent cotton as a probang being preferred.

Without continuing this case too long, let me add that upon the fifth day, without closing the artificial opening, respiration through the nose was reëstablished, as was witnessed by the film that gathered upon the mirror held to the nostrils. After the first twenty-four hours no retraction was exercised upon the margins of the wound, permitting it to gradually contract of itself. As it contracted nature would attempt to establish the equilibrium by

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reëstablishing respiration by the natural channels; as mentioned, it commenced upon the fifth day.

As the opening contracted, so did the natural respiration increase, so that after the fifth day, maintaining the opening wholly clear of the inspissated mucus and local inflammatory pus was found unnecessary, thereafter only cleansing it sufficiently to remove any phlegm which could not be carried out when a paroxysm appeared.

This inspissated mucus gradually bridged over the tracheal opening, increasing from below upward. I noticed that nature, in her reparative process, made use of this bridge of inspissated mucus, etc., as a framework in developing her granulating tissue.

I did not introduce any ligatures, leaving the whole wound to unite by granulation.

And so successful was this method that on the thirteenth day the artificial rima had entirely closed, and normal respiration was reëstablished.

Here then seemed a case proving my conclusion that the canula constitutes an especially exciting and very dangerous cause.

The rapid recovery of the case is not to be overlooked; thirteen days from the operation the tracheal opening is healed, respiration wholly reestablished, the child walking around the room.

I attribute the success to the early removal of the canula, the almost nonintubation of the trachea, and of great importance, the nursing.

The only grave concern that is experienced in the nonintubation is to maintain patent the artificial rima; yet this is not very difficult, since either ligatures or retractors will successfully accomplish it.

Ligatures I introduced in my first case, but they caused sloughing; I have not used them since, finding them unnecessary and expensive, preferring to depend upon other retractors.

These retractors may be of the ordinary kind, or some other form of retractors specially improvised at the time to meet the case. In an emergency, two ordinary hair pins will answer the purpose very well, bending the closed, rounded end so as to be inserted into the opening and grasp each tracheal margin, turning and fastening the open ends of the pin toward each other, to which the tape passing around the neck may be attached. Two soft, thin, narrow, flexible plates of German silver, bent as the case may dictate, having an opening in the distal extremity for the tape, would better suit the purpose as retractors, as then the surface ex-

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posed to and held back by the retracting force would be continuous, while with the hair pins only the two points where the slight wires opposed would receive the retracting force, leaving, comparatively speaking, a large interval subject to the normal centripetal contracting force of the cartilages, which, if long continued, causes sloughing and sinking of the hair pin wires into the tracheal tissues. This would be very undesirable because of the irritation such action would entail and the subsequent danger of a serious cicatricial stenosis.

Not having such plates always at command, it is best to have recourse to the hair pins at the first, and subsequently replace them as desired.

This is the course I adopted in my third case.

To reduce the normal tracheal resistance as far as possible, I do not suture the skin above or below the tracheal opening. In so suturing you encourage the normal circumferential pressure which the surrounding tissues exert upon the trachea, increasing the tendency of the severed tracheal margins to approximate each other, a circumstance to be avoided early in the after-operation period.

Again, by not suturing we reduce the tracheal resistance to be overcome by the retractors, and thus diminish the irritation which the expenditure of the two opposing and retractive forces gives rise to, namely, the force of the normal resistance of the elastic contracting cartilages of the trachea, increased by the normal tension of the circumferential tissues, pitted against the abnormal retractive force of the retractors.

Retraction I found unnecessary after the first day and a half, then only inserting the retractors when a paroxysm came on or the presence of mucus, serum or blood, causing dyspnea, necessitated cleansing of the trachea. To cleanse the tube either canular or tracheal, my experience leads me to discard the feather where absorbent cotton is to hand.

The ordinary flexible pocket case sound answers very well; it can be bent as desired. Wrapping some cotton around one end of the sound not too tightly, or too much, it makes a splendid means with which to enter the trachea and dislodge any matter that may be necessary.

The introduction of the canula assures the two great requisites following tracheotomy, namely to maintain patent the artificial rima and to insure a clear tracheal lumen for the free passage of air.

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Can these two great requirements be met and without the intubation of the trachea by the canula?

Yes; and if so, we will have solved a way to overcome, in a greater or less degree, these serious complications so fatal, as a rule, in tracheotomies, and have found a means favorably influencing the prognosis of such cases.

The irritation caused by the introduction and removal of the canula, and by its prolonged presence in the trachea, will be done away with; there will be no pressure inflammation, necrosis; no hemmorhages from these sources; no granulomata; no danger of this irritation inviting by bronchial extension broncho-pneumonia, increasing the tendency to exhaustion and heart failure; thus will the happy results following tracheotomy be favorably influenced.

567 W. MADISON STREET.

REPORT OF TWO CASES, IN ONE OF WHICH THE INITIAL SCLEROSIS OF SYPHILIS WAS SITUATED ON THE TONSIL, AND IN THE OTHER ON THE TONGUE.

BY FREDERIC D. OWSLEY, M. D.

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In describing these cases I will take them up in the order in which they came under my observation, rather than in the sequence of their infection.

On February 11th, Mrs. B., eighteen years of age, presented herself at my clinic in the Post Graduate Medical School. Upon examining her throat I found both tonsils enlarged, the left being of such size as to protrude beyond the median line so that the uvula rested upon the body of the enlarged tonsil. The mucous membrane of the fauces was covered with an abundant accumulation of tenacious mucus of a dirty gray color, the throat at first glance presenting a very similar appearance to that which is characteristic of severe cases of follicular tonsillitis.

In fact had it not been for the history as related by the patient, of the condition having already existed for over a month, a causual examination would have undoubtedly given the impression of follicular tonsillitis. The absence of fever, the immense enlargement of the submaxillary and cervical glands, particularly those of

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the left side contraindicated the presence of the disease just mentioned.

After removing the accumulation of mucous with a cleansing spray, the true nature of the disease was easily recognizable, by the abundant presence of those typical lesions of secondary syphilis, the broad condylomata. These lesions were freely scattered over the mucous membrane of the tonsils, the tongue and pharynx. Situated on the anterior surface of the left tonsil, in the midst of the condylomata, was an ulcer, which presented the appearance of a primary syphilitic sore, having an indurated and raised border and an excavated center.

The unusual severity of the throat manifestations, the unilateral character of the disease, the left tonsil being of such extraordinary size, and the glands on that side being so much larger and more painful to the touch than those of the other, led me to believe that I had to deal with an unusual case of syphilitic throat. The condition of the left tonsil and the glands on that side of the neck at once aroused the suspicion of an initial sclerosis of the tonsil. After requesting the patient to come to my office that I might examine more closely into the history of the case, I announced to the students present at the clinic that I had every reason to believe the case I had just shown them was one of those rare instances in which the tonsil was the seat of the initial infection. Subsequent examination and careful inquiry into the history of the case has convinced me that my suspicions were well-founded.

An examination of the genitals failed to bring to light any evidence of a past or present syphilitic lesion. The patient complained of pain on going to stool, which she attributed to piles, but which I found upon examination to be due to an aggregation of broad condylomata around and extending into the anus. By questioning I was enabled to obtain from the patient the following history:

For several years past, during the winter months, she has been subject to repeated attacks of tonsillitis. Her physician in Milwaukee, where she formerly resided, advised her to have the tonsils removed.

She came to Chicago in July last; shortly afterward she made the acquaintance of a young man to who she became engaged in September. She acknowledged that they indulged freely in the usual osculatory demonstrations of affection to which lovers are prone. About the last of September she suffered from a severe attack of sore throat, which she supposed was the annual

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visitation of tonsillitis. This sore throat lasted several weeks longer than had her previous attacks, and it was accompanied by an unusual swelling and soreness on the left side of the neck.

The throat symptoms gradually disappeared under the treatment prescribed by her physician, who treated the case as one of tonsillitis, but the enlargement and tenderness on the neck remained.

On December 28th she was married. About ten days after marriage her throat again became sore, and she noticed what she described as a number of white ulcers on the tongue and tonsils; and from that time until she came to my clinic on February 11th her throat had been growing worse.

From the condition of the throat, the history given by the patient, and the confirmatory evidence obtained from the case of her husband, which I will hereafter describe, I have made the diagnosis of initial sclerosis of the tonsil, and I have drawn the following conclusions:

First, that the girl contracted the disease about five months ago, shortly after the engagement, and that the syphilitic virus was transmitted by kissing; that the severe sore throat, described as occurring in September, was the inflammation attending the development of the initial sclerosis.

Secondly, that the immense size and condition of the left tonsil and the neighboring gland were due to the location of the initial infection.

Thirdly, that the developments following the marriage and the condition now present are the secondary manifestations of the disease.

Case II. Initial Sclerosis of the Tongue.

The intimate relation existing between this case and the one just described induces me to give the history of the case as obtained from the patient before describing the clinical aspect presented. In response to my request made of the wife, that her husband should come to my office; he presented himself on February 16th.

Mr. B., 22 years of age, a printer by trade. In reply to my questions he stated that he had never had syphilis, and denied that he had ever had sore on his genitals, any rash or eruption of the skin, except a few pimples on the face. He acknowledged having had gonorrhea twice, the last time a year before his marriage. The results of questioning were negative.

A thorough examination of the integument and genitals failed to bring to light any evidence of a syphilitic lesion. Upon ques-

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tioning in regard to the throat, he stated that his throat had never given him any serious trouble. Upon examining the throat I found the following condition:

Situated on the free border of the left side of the tongue at the center of its extent, was an ulcer about the size of the little finger nail, having a deeply excavated center and irregular border, showing evidence in places of cicatrization. The floor of the ulcer was covered with a dirty gray-colored exudate. Scattered over the mucous membrane of the tonsils and pharynx were a number of typical mucous patches. After making the discovery just recited I was enabled to obtain from the patient the following history:

He stated that about seven months ago he first noticed a small ulcer on the tongue; it was slightly painful, and for about two months it continued to increased in size; but the sensitiveness had gradually disappeared until it ceased to occasion him any inconvenience. During the past seven months from time to time he has been subject to slight attacks of sore throat, but none of sufficent severity to induce him to seek medical advice. The patient had not attached much significance to the throat symptoms, as he had attributed the condition to cigarette smoking, to which habit he was addicted.

In this case the lesion of secondary syphilis present on the mucous membrane of the pharynx and tonsils determined the diagnosis. If there could be any question as to the certainty of the diagnosis of syphilis, it was removed by the marked syphilitic condition in the case of the wife, who undoubtedly received the infection from the husband. The appearance of the ulcer on the side of the tongue, the history if its development, and the absence of an initial genital lesion, stamps this ulcer of the tongue as the seat of the initial infection.

An interesting feature of these cases is the severity of the syphilitic manifestations in the wife and the comparatively mild course of the disease in her husband from whom she received the infection. Of course, it is generally recognized among the profession, that syphilis manifests itself in different degrees of intensity, and that from a very mild form of the disease in one person an infection may be received in another which will show a great degree of malignancy. But in these cases I attribute the difference in the severity of the manifestation to the difference in the seat of the infection. The loose structure of the tonsillar tissue and the intimate relation of the large lymphatics, predisposes to a much greater degree of local inflammation and a more rapid distribution of consti-

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tutional infection than does the dense muscular structure of the tongue.

Both cases have now been under the antisyphilitic treatment for two weeks and both show marked signs of improvement. In the woman the aggravated throat symptoms have disappeared, the left tonsil has decreased fully one-half in size, and she can now take nourishment with comparative comfort. The condylomata around the anus have almost entirely disappeared and evacuations are no longer attended with pain.

In the case of the husband the effects of treatment have been quite as apparent. The mucous patches have to a great extent disappeared, and the ulcer on the tongue shows evidence of rapid cicatrization. I have used corrosive sublimate hypodermically in the gluteal region, in the treatment of these cases, and have obtained the usual rapid results.

An examination of the literature on the subject will show that the occurrence of the initial sclerosis in the fauces is by no means a rare occurrence. Mackinzie states in his work that the tonsil is usually the seat of the initial sore when it occurs in the fauces; owing to the structure of these glands, the lacunae of which are likely to retain the virus when it is introduced into the throat.

It is generally considered essential that there should be an erosion of the mucous membrane for the introduction of the specific virus, but Bosworth holds that this is not necessary in the case of the tonsil. Bogolgiehoff found one case of chancre of the tonsil out of 753 cases, and Sir Morrell Mackinzie, in the vast experience of a lifetime, found the initial sclerosis of fauces present in but seven cases. Cases have been reported by Rabitsch, Fox, Taylor, Bumsted, Martin, Hue, Schnitzler, Hayjeck and a few others.

In my three years' experiencs in the throat clinics of Europe I saw but two cases, in both of which the lesion was located on the tonsil. I believe that in most instances of tonsillar chancre a hypertropy of the glands exists at the time of the infection. In the cases I have seen I have every reason to believe that such was the case.

65 RANDOLPH STREET.

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ON THE USE OF MINERAL WATERS IN THE TREATMENT OF THE DISEASES OF WOMEN.

BY THE LATE A. REEVES JACKSON, A. M., M, D.

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Sancho Panza said, "Too much water killed the miller." This should not create a prejudice against water. Whatever may have been the details connected with the death of the miller he evidently had too much of what is and ought to be considered a good thing.

A great deal might be said in support of this proposition, but I do not intend to say it, at least I do not intend to say much of it. Indeed concerning the uses of and necessities for water in the economy of nature and in the preservation of health and life in animated beings I shall say nothing. I intend to speak of water only as a health restoring agent, and shall still further limit the scope on my remarks by confining them to a consideration of its effects and supposed effects in the treatment of the special disorders of women. Nevertheless, in order that I may not be misunderstood it will probably be well to clear away in the outset some of the more common erroneous notions which have found a place in the minds of the laity as regards the alleged special character of this class of ailments. And beyond the benefit that may thus come to nonprofessional readers a few hints may not be wholly lost upon medical practioners, some of whom do not always bestow as much thought upon familiar things as the latter frequently deserve.

The fact that in recent years the practice of medicine has been divided up, as it was among the ancient Greeks, into almost as many branches or specialties as there are organs in the body, has led very many persons within and without the medical profession to lose sight of the fact, or at least to lessen the importance of it, that every part of the human body is connected more or less intimately with every other part, structurally and functionally, and that both in health and disease this intimacy is constantly asserting itself. So that while specialism in medical practice may lead to expertness in diagonsis by limiting the range within which the senses of touch and sight and hearing are cultivated and thus con-

A manuscript found in Dr. Jackson's desk, and probably his last written work.

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duce to greater accuracy of result, yet it ought to be remembered that such comparatively exclusive study may, by giving undue prominence to the matters more constanly under consideration, produce the injurious effect of diverting attention from others equally important, and from the main fact, and one never to be ignored, namely, that the human body, sick or well, is to be considered a unit. The rational deduction from this is that when mineral waters or other non-surgical therapeutic means are beneficially employed in the treatment of the special diseases of women, the good result does not always, or even usually, come because the remedies act specifically upon the female generative organs, but rather because they stimulate the functional activity of associated organs likewise. The torpid liver, the deranged urinary functions, the inactivity of the digestive tract and skin, and the disorders of all the other organs engaged in nutrition and innervation are factors which must and do exert an unfavorable influence upon the female pelvic organs, and the removal of these many-caused influences must be and are correspondingly beneficial. The use of waters as remedial agents in the treatment of diseases of various kinds dates back to earliest historical times, and while doubtless there is very much that is fictitious and fanciful in many of the accounts which we have received concerning their remarkable efficacy there is a substratum of truth underlying them. As regards the use of water In the pelvic disorders of women it has been chiefly according to three methods, namely, general and partial baths, local internal applications, and drinking.

1. General Baths. Except in certain extraordinary conditions the skin has but little power to absorb water, and in order that the organ may be stimulated to increased activity there must be elevation of temperature of the agent or it must be impregnated with a considerable amout of gas or salts. General baths, when used for their exciting or sedative effects according to their temperature are usually not medicated, but these effects may be greatly increased, especially when it is intended to produce stimulation, by adding alkalies or common salt to the water. Indeed, the stimulating influence of saline waters, and also of those which contain iron, has long been known, and they have been of distinct value in chlorosis, anemia, hysteria, and various nervous affectations of women. The application of douches and wetted cloths and sponges to various external parts of the body has been followed by marked benefit in some cases of pelvic disease associated with lumbago, sicatica and nervous affectations. Inasmuch as patients

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are variously affected by the methods, a great deal of discrimination is necessary in the adjustment of the column of water, its force and temperature. Hence the remedy ought to be used under the guidance of a physician. This form of aqueous medication is especially useful in the case of unmarried women in whom vaginal injections are frequently not suitable. Irrigations or douches by spray or in a stream, warm or cold, or with alternating heat and cold, may be found useful when applied to the spine, about the hips and over the pubic region. The partial or sitz bath of varying degree of temperature and variously medicated has been very much used, especially in Germany and France, and is unquestionably beneficial in many cases, particularly in precuring relief in pruritis of vulva, vaginitis, excessive tenderness of the vaginal entrance, and in irritation of the external parts from acrid leucorrhea. But in many of the cases of this class the useful results have been dependent chiefly upon the temperature of the water or its medication, the water itself being only a vehicle for the conveyance of heat and of the salines or gases in solution.

2. Local Internal Application.—In various disorders of women, especially those attended by luecorrhea and congestion and inflammatory conditions of the pelvic organs, vaginal douches, or irrigations have been extensivsly used, and when the treatment is pursued intelligently and with discrimination it has been attended by very marked benefit. But because of the great advantage which has been observed in many cases, it has come to be considered almost a panacea in all conditions of pelvic derangement and in consequence of this unreasonable overestimate of its curative powers; it has been improperly used and sometimes with injurious result. Indeed, so universally has this form of douche been employed that many ladies in the United States, France and England consider some form of syringe for the purpose a necessary toilet appliance to be used even when no disorder whatever is present. Many of the French and German ladies' baths are so constructed that the patient many sit over an ascending vaginal douche, the injecting tube being introduced by the patient, but the method is an awkward one, not wholly free from danger, and quite inferior to the one in use in America in which the patient lies upon the back and permits the water to enter the vagina by means of a rubber tube and pipe connected with a reservoir placed two or three feet above the level of the body. In acute inflammation of the plevic structures, vaginitis, endometritis, peritonitis, the disease may frequently be aborted by the use of a hot

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vaginal irrigation of a temperature from 105° to 120° continued six or eight hours and resumed after a rest of two or three hours in bed. The employment of the hot douche is usually almost if not quite useless in these cases, for the reason that it is used only for fifteen or twenty minutes, and perhaps repeated at most once or twice in twenty-four hours. Such improper and inefficient use of the douche as this is more likely to do harm than good.

3 DRINKING. The opinion is universal that a water suitable for drinking ought to be pure, and that such purity is synonymous with wholesomeness. This is an error. Similarly it is a matter of common belief that a water which is colorless and transparent is therefore both pure and wholesome. This notion is likewise erroneous.

The fact is that a water may be chemically pure, that is it may not contain any foreign substance, and yet may be not wholesome. This is frequently observed in the case of distilled or condensed water, which is chemically pure, and which is known to be not only unpalatable, but to disagree with the stomach in many persons. On the other hand, a water which is chemically impure from the presence of inorganic salts may be of the most wholesome character. This is true of most spring waters, some of which like the chalybeate, sulphur, alkaline and lithia springs contain these and other ingredients in such quantity and such relative proportions, as to not only make them markedly wholesome as potable waters but to place them among the most efficient remedies in the treatment of disease. On the other hand a water may be turbid from the presence of various inorganic matters in suspension, and yet not at all unwholesome. So, too, a water which emits an unpleasant odor may not be necessarily either impure or unwholesome. But, notwithstanding these facts, it is decidedly more pleasant to have our drinking water clear, colorless and free from odor. Having cleared away some of these popular errors I desire to call attention to certain disordered conditions of the urinary organs in which the water containing the lithia salts have been found of distinct benefit.

1. Cases in which the urine is found to be scanty, excessively acid, of high sp. gr. with frequent urination and in which these evidences of urinary disorders are accompanied by various dyspeptic symptoms, as impairment of appetite, pyrosis, torpid bowels, irregular or intermittent pulse, and with mental depression. The urine when allowed to cool deposits a sediment which is found to consist of uric acid crystals and oxalate of lime.

2. In a second class of cases there are found with the same

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or similar disorders of the urinary function various neurasthenic symptoms such as sleeplessness, headache, vertigo, neuralgia, muscular twitchings, vasomotor disturbances, hysterical and epiliptiform seizures. Indeed I have the opinion that some of the most marked and intractable cases of neurasthenia in which months and even years have been spent in treating vague pelvic symptoms, as though the seat of trouble were there, are dependent really upon the lithic acid diathesis rather than any pelvic condition. If this fact were duly recognized it would I am sure remove some of the cases from the list of those which are an approbrium.

3. A third class of cases comprises those in which there is a gouty disposition, either hereditary or acquired, and in which the subjects are habitually overfed and under worked; in whom there occur frequent gastric and hepatic disturbances. In all of the foregoing classes of invalids there may be found in addition to pelvic conditions characterized especially by undue congestion usually of the passive kind, and which do not and will not yield to mere local treatment an underlying lithemia that must be corrected as an indispensable preliminary. No single article diatetic or medicinal, is more likely to be beneficial in cases marked by the characteristics mentioned than the lithia salts as found in the natural waters. Under their free and continual use the urine rapidly assumes its normal character and the improvement in the function of the kidneys is frequently accompanied by amelioration in the gastric, nervous and pelvic symptoms.

It is well understood that the chronic pelvic disorders of women, especially those of an inflammatory or congestive nature, rarely exist for any considerable period without influencing the organs concerned in general nutrition. And hence the great need of securing and maintaining a healthy performance of all functions necessary to blood making and innervation. Without these essentials health cannot long exist.

In regard to the use of mineral waters for health purposes the people of America have until within a very few years labored under the mistaken idea that in order to obtain the best results it was necessary for them to go abroad and visit foreign Spas and there use the baths and drink the waters. Undoubtedly many have been benefited by the adoption of this course; the error has not consisted in what they have done so much as in their supposed need for doing it, and in their interpretation of how the result was to be obtained. They have supposed that the benefit received was wholly or chiefly due to the use of a water of some particular

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chemical composition containing perhaps a grain or two, more or less, of chloride of sodium or of sulphate of magnesia to the gallon, and they have left out of consideration other more potent factors comprising change of air, freedom from harrassing cares, wearing domestic and social duties, regulation of diet and exercise, and innumerable other circumstances that affect the welfare of even those who are healthy, and in a still greater degree those whose health has become impaired. It is largely this erroneous nation that usually fills annually with invalid guests such popular European watering places as Ems, Franzensbad, Carlsbad, Vichy, Kreuznach and others. They do not know that there is no country in the world that is so thoroughly supplied with gaseous and mineral waters of all grades and kinds as our own. There is no spring in France, Germany or Switzerland, that surpasses in remedial value the Waukesha-Lithia Spring of our own country at Waukesha, Wis. Various springs at Waukesha have attained popular favor and professional approval for their medicinal virtues as well as for their purity as table waters. The Waukesha Lithia Spring is preëminent because it has been found to combine the desirable features of the best Waukesha waters with the signal advantage that it alone contains lithia. From the analysis of the Waukesha-Lithia water and the chemists' comments thereon it can readily be seen that all the benefits may be expected from it that can accrue from the use of any natural water for the relief of the conditions already described as resulting from lithic acid retention.

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TREATMENT OF COLLES' FRACTURE BY EXTENSION.

By HENRY VAN BUREN, Chicago.

This was an oblique fracture occurring about one inch above the lower end of the radius and extending downward and inward to the interosseous space, and an anterio-posterial vertical fracture of the lower fragment entering the wrist joint. What I understand to be a Colles' fracture is one at the lower end of the radius involving the radial articulation by fracture. A solution of continuity at the lower end of the radius is, comparatively, a simple fracture and only serious as all fractures are when in close proximity to any joint. It is not necessary to say that Colles' fractures are not the most easy of management nor are the results always satisfactory.

The authorities and the experience of most surgeons confirm this.

The treatment of this case and the appliances used are now shown. Four pieces of adhesive plaster of good quality about 2½ inches wide and 14 inches in length are required.

Divide each piece transversely about its center. Turn one-half of each piece, splice it onto its other divided half to the extent of two inches lengthwise, placing the two adhesive surfaces together for this distance. We will thus have adhesive surfaces on the reverse sides of these four pieces of spliced plaster.

These four pieces are applied as follows: The first one by one adhesive end or surface to the fore-arm on the anterior surface, from above downward, bringing the lower end of the adhesive surface to the middle third of the arm. The second plaster is applied in the same manner on the posterior surface of the arm. The third is applied to the palmer surface of the hand and wrist from below upward as high as the lower margin of the fracture. The fourth is applied in the same manner on the dorsal surface of the hand and wrist.

Circular pieces of adhesive strips may be applied around the fore-arm over the lower ends of the upper adhesive plaster, also over the upper ends of the lower plasters at the wrist just below the fracture. These will aid in retaining the traction adhesive strips. They need not be applied so tightly as to restrict the circulation.

Two thin wood splints are next applied. They are about two and a half inches wide and in length extending from the upper end of the forearm to the lower end of the metacarpal articulation. The inner surfaces of these splints are covered with one layer of cotton cloth attached to the splint by starch paste. Their outer surfaces are smooth and bare. One splint is applied to the an-

Chicago Pathological Society, Feb. 13th, 1893.

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terior aspect of the forearm extending down to the lower margin of the palm of the hand. The second splint is applied to the posterior part of the arm, extending as low as the anterior splint.

These splints are applied with the hand midway between supination and pronation and the anterior one is an inch or more shorter than the posterior, permitting flexion of the forearm where it is carried at right angle in a sling. The ends of each of the four reversed adhesive plasters are now carried over the four ends of these two splints and their adhesive surfaces attached or applied to the bare surfaces of the splints.

The upper plasters should be applied first, and the lower while an assistant causes traction on the hand and thus extension is maintained. The upper adhesive strips may be longer if desired and extend downward to the upper margin of the fracture.

Extension may be increased by removing the lower ends of the plaster from the splint, first one and then the other, while traction is maintained and the strips re-applied to the splints. Should there occur any slipping or want of adhesion of the plasters on the integument, they may be reapplied or new pieces applied.

To avoid the silver fork deformity, pieces of cotton may be placed over the prominence on the dorsal side of the carpal bones and on the anterior side of the forearm above the fracture. The lower end of the ulna at the point of articulation may also be supported with a compress all of which are easily applied without removing the splints. A collar or bandage is now applied over the splints, supporting them and the compresses so far as necessary. That extension is desirable in all oblique or comminuted fractures of the long bones, I have no question. That in oblique fractures of these bones, overriding of the fragments to a more or less extent is the rule unless extension is maintained. If for no other service, extension in long bones is valuable as a retentive appliance. Approved methods of different kinds have been used in the management of Colles' fractures, but in no other appliance have I secured a result better than in this case.

It is now ten weeks since this fracture occurred, and while the parts are still sensitive and the motions cause slight pain the indications are well maintained.

Supination and pronation is nearly complete, flexion and hyper-extension are good. Adduction and abduction are not restricted and the deformity such as there may be, is at the minum resulting from these fractures.

15 N. May Street.

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THE

CHICAGO MEDICAL RECORDER.

Journal of the Chicago Medical Society.

Drs. JOHN A. ROBISON, WILLIAM T. THACKERAY, EDMUND J. DOERING
Committee on Publication.

Dr. ARCHIBALD CHURCH, Editor for the Committee.

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Society Proceedings.

THE CHICAGO MEDICAL SOCIETY.

Regular Meeting at Orpheus Hall, March 6, 1893.

The meeting was called to order by First Vice President MacArthur. The reading of the minutes of the previous meeting was omitted.

The Committee on Membership was called upon to report on applications, but did not respond.

Dr. J. F. RIDLON read a paper on "The Differential Diagnosis and the Prognosis of Tubercular Spondylitis." See page 237.

Dr. WALLACE BLANCHARD took up the subject of the curability of kyphosis. See page 244.

Dr. G. C. KRIGIER: I agree with Dr. Blanchard that the immobilizing factor is always the most prominent one in treating spondylitis, but as the patients generally are very poor it is hard to make them get such an apparatus. The plaster of Paris splint gives fully as much immobilization as an apparatus like this, if the patient comes twice a week to be suspended, and have the jacket changed if necessary once in a while.

Dr. A. B. HOSMER: In differentiating between irritable or hysterical spine and spondylitis, I think the question of temperature

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is important because even in the early stages of tubercular spondylitis we have an evening rise of temperature. In regard to the prognosis, the statement that if cases die they invariably die of meningitis or general tubercular infection is a little broad. There are some cases, particularly in adults where abscesses have existed for a long time, and finally, either through interference on the part of the surgeon or spontaneously communicated externally, and infection gradually occurring, has resulted in septicemia and finally in pyemia and death. In regard to the prognosis as to deformity, especially in cases of lumbar Pott's disease where the disease is more lateral, or has even invaded the processes of the spine, we have invariably to anticipate a decided lateral deflection, and no matter what treatment is undertaken, or how faithfully it is carried out, we are bound to have a certain amount of deformity.

Dr. A. J. OCHSNER: I have found a very inexpensive apparatus to be one composed of silicate of soda, in which gauze bandages have been immersed and applied in the ordinary manner, as a circular bandage is applied, with pads on each side of the projecting spine, in order to secure and protect the surface. The sides of the cast are strengthened by means of splints similar to the thin layers of wood that compose the ordinary market basket. These will support the cast perfectly, and the weight is only about one-fourth that of plaster of Paris and only about one-half that of the apparatus exhibited by Dr. Blanchard, and still it will be equally as strong, and at a cost of about forty cents.

Dr. JOHN RIDLON, in closing the discussion, said: In regard to death from septicemia, referred to by Dr Hosmer, of course every one of us see death from septicemia in cases of Pott's disease that have abscesses; nevertheless I am very sure that death from septicemia is exceedingly rare in cases of Pott's disease with untreated abscesses; all the cases of septicemia I have seen have been in those patients whose abscesses have been opened or operated upon in some way by the medical attendant.

I have been in a position to see these cases get well without treatment and I know how well these abscesses do when they are not treated and how horribly they do when they are treated in the ordinary way, and I honestly believe that cases that die of septicemia are those that have been in some way interfered with surgically.

Regarding the point made by Dr. Krigier, I purposely avoided the treatment of Pott's disease because I knew we should all differ; but I think he confounds the principles of the plaster jacket as used

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by Sayre and the treatment used by Dr. Blanchard. The treatment by the plaster jacket aims by frequently repeated partial suspensions to correct the deformity and by the jacket to hold it in place; Dr. Blanchard's treatment aims to correct the deformity as rapidly as possible by continuous horizontal stretching, and to hold it continuously in one position after as much correction has been gained as possible. I think it is pretty generally accepted by surgeons that tubercular bone disease begins to get well when it is continuously immobilized, therefore I think the point of great importance in Dr. Blanchard's cases is that he corrects the deformity and holds it in one place much earlier than by the other methods which often cover two or three months and sometimes years. I have no doubt the jacket used by skillful hands on the same plan as that advocated by Dr. Blanchard would be as effective, perhaps, as his apparatus, but it is the principle I point to rather than the detail of treatment; one man can work best with plaster of Paris, another with leather, another with steel, but the principles of the two plans of treatment are different, and that needs to be borne in mind.

The reading of Dr. Owsley's paper was deferred to the next meeting.

DR. J. B. BACON exhibited specimens demonstrating, (1) intestinal transplantation for stricture of the rectum; (2) suturing cut ureters.

I have been for some time trying to devise a method by which we could operate in a more conservative manner for the treatment of strictures of the rectum, especially the tubular variety and strictures that are high in the rectum, but after thinking over the subject for a long time and being unable to devise any means by which I could do any operation to relieve that class of cases, I gave it up in despair, until Dr. Murphy invented the button for anastomosing the intestines. The method I have thought of will require a regular laparotomy, and will thus enable us to open the peritoneal cavity in an aseptic manner, while with the operation of Kraske we were compelled to open the peritoneum for high strictures, and were almost sure to infect the wound.

My method is based on the idea of transplanting a piece of the small intestine to the rectum. Take a piece of intestine with the mesenteric blood vessels supplying and nourishing it, my idea is that we can easily preserve the blood vessels running to the piece of intestine, and you can take it at any place lying nearest to the part of the rectum you want to operate upon and can entirely excise a piece of the intestine, strip down the mesentery and leave

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all the blood vessels, then use a Murphy button in the place where you can cut it away and make an end to anastomosis of the intestine. While I have only been doing this work since these buttons came out and it is too short a time to make a positive statement, still I believe from what I have done that it is going to succeed. Before the invention of these buttons it would have been almost impossible to do this. I advocate the use of the Trendelenberg position in doing this work, the intestines fall out of the way and you can pick up the one nearest to the rectum. I have an assistant insert the female half of the button in the rectum up near my finger; if we make an incision and introduce it above it makes too large a wound and we must sew around the staff of the button,

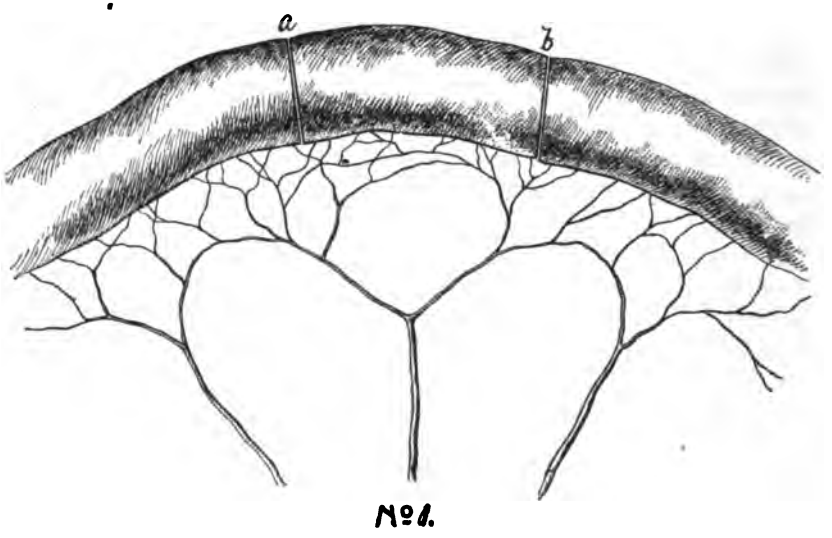

Fig. 1. Loop of the ileum illustrating how to select a piece for transplanting so as to have its mesentery supplied with a good-sized artery.

and to do that at the bottom of this cul-de-sac would be very difficult, but by inserting one-half of the button in the rectum opposite the finger, telling the assistant how far up to put it, we only have to make a small incision and force the staff of the button through that incision and apply the button after the piece to be transplanted is in place. We make such a small opening in the rectum that it is not necessary to put in any sutures. Transplanting a piece of intestine for strictures in the rectum would only be called for in those cases where the mesentery of the sigmoid is too short for turning down and anastomosing to the rectum below the

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stricture. Out of fifteen bodies which I examined last week, in fourteen the anastomosis could be made by bringing the sigmoid into the cul-de-sac and anastomosing low down, but in one case the mesocolon was so short that the sigmoid was bound down firmly. In that case it would have been impossible to anastomose the sigmoid and would have required transplantation of a piece of intestine.

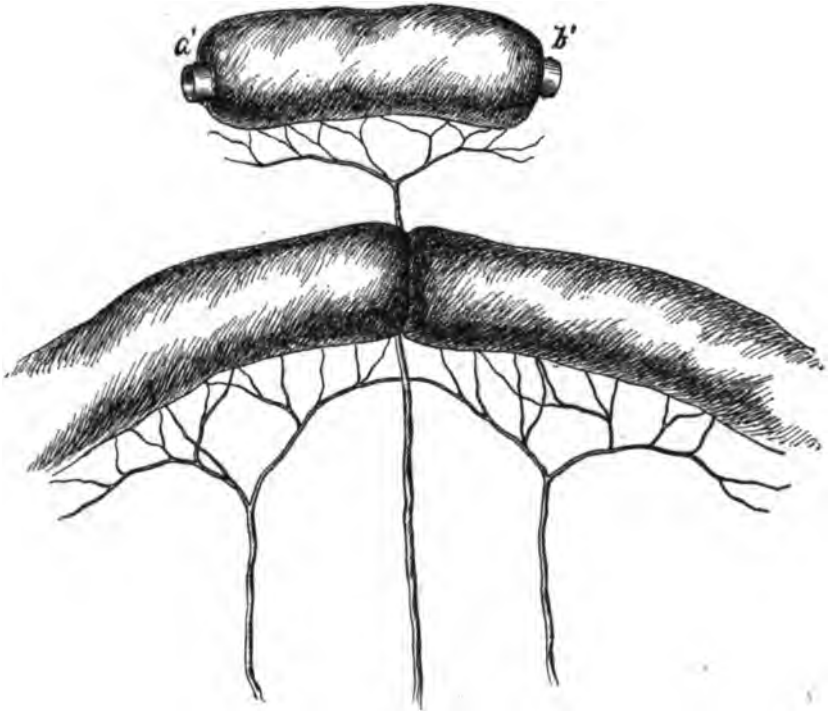

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Fig 2. Appearance of the piece of gut for transplanting, with the male half of button in each end. End to end approximation of the intestine.

The approximated surfaces of the transplanted piece of intestine and the rectum are sutured together to form a firm septum. You can insert a pair of broad forceps through the anus, after the button comes away, and destroy the septum between the transplanted piece and the rectum, leaving a broad channel for the feces to pass with no stricture in the upper half of the rectum. The same thing can be done in the sigmoid; if you scarify the edges and

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sew them together, after the button comes away you can insert forceps through the anus and destroy the septum and have no bad results from the original stricture.

It frequently happens in laparotomy that a tumor has became attached to the ureter and it is impossible to avoid cutting it, and heretofore it has been impossible to unite these cut ureters because whenever a suture is exposed to the urine a calculus forms and obstruct the ureter. But it occurred to me if this transplantation of intestines succeeds that the same thing can be done for the relief of cases where the ureter is cut. I would take a piece of this transplanted intestine and Robinson's purse string suture and invaginate the end, and this is done very quickly and easily; invaginate each end, and then lay a pieceof transplanted intestine where the ureter was, scarify the edges, put in a few stitches to hold it down and it will throw out an exudation which will bind it there so

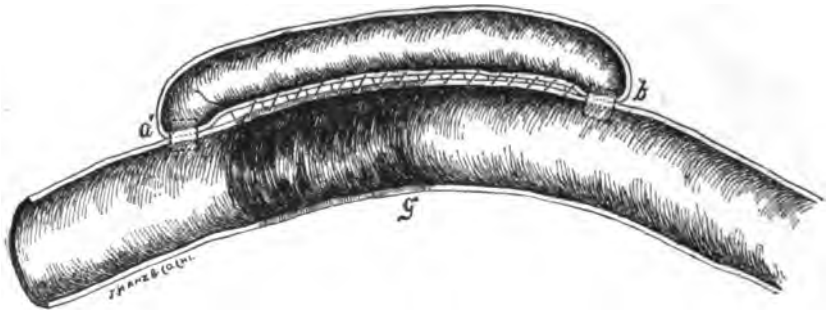

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Fig. 8. Transplanted piece in position, with anastomosis above and below the stricture.

that no hernia can get under it afterward. Then bring the cut end of the ureter into this transplanted piece of gut and sew through with a Lembert suture, catching only the walls of the ureter without perforating its canal. After fastening it with the first suture run one stitch through the ureter and run the needle out here a half inch below where you make the opening below and cut off the thread. By pulling the ureter up through the needle hole and putting in a Lembert suture over the wound it is entirely closed and by putting in one suture after another you turn this cut ureter in so that it is covered by peritoneum except inside where it has been split.

Dr. FRANKLIN H. MARTIN: I think that transplantation of intestine, as depicted by Dr. Bacon so beautifully by his drawings,

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is to appear in medical history as a great fact. Of course the first question to be discussed is, is it practical? Is it impossible to transplant an intestine? I do not believe that any abdominal surgeon doubts for one moment that a portion of the intestine can be removed and that the ends from which this portion has been removed can be united, and I believe in the future it will be an operation as easily accomplished as the control of the pedicle in hysterectomy, which for so long was an eyesore to the abdominal surgeon. I believe the Murphy button or some modification of it or some device will be used to unite the cut ends of the intestine. I do not believe there is an intestinal surgeon who will not agree

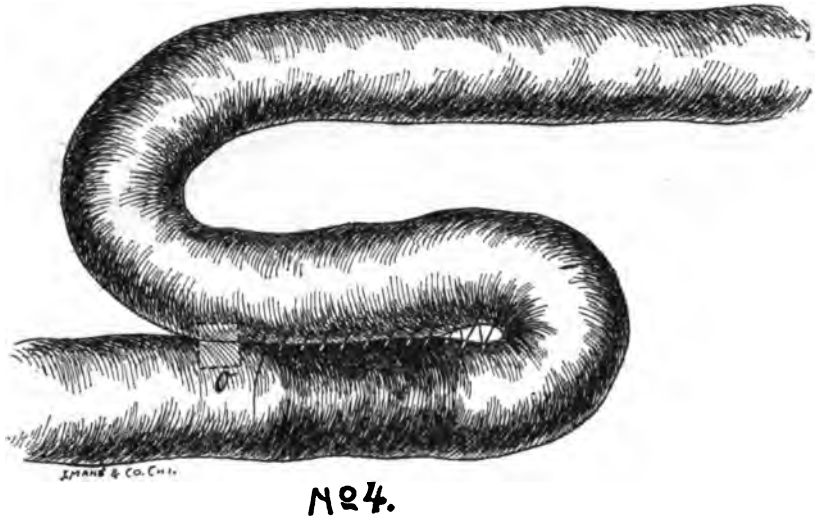

Fig. 4. Anastomosis of the sigmoid and the rectum below the stricture. Approximated surfaces sutured to form a firm septum.

with me that the portions of the intestine removed will be nourished, and that the intestine may not be transplanted to some other portion of the abdominal cavity. We have here a great principle that is equal to the mechanical device of anastomosis as given to us by Senn. If the doctor had brought before us simply the subject of transplantation of intestines and specimens upon which he had made successful transplantations, leaving out its application for the present, his paper still would have marked an epoch in abdominal surgery.

Dr. F. Byron Robinson: The main idea contained in its first operation is transplantation.

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Dr. Martin asks the question whether the transplant will live. I know that the transplant will live because I have several times excluded a portion of the intestinal canal in dogs, from the digestive tract and the portion of gut lived until the dog was killed. But Dr. Bacon uses this transplant for a definite purpose. Dr. Bacon's method of transplantation for strictures allows of both lateral and terminal anastomosis. I think the most valuable hints gained from Dr. Bacon's inventions are the bringing down of the sigmoid and anastomosing it below the rectal stricture with the Murphy button. His method of introducing the button through the rectum with a pair of forceps is new and valuable.

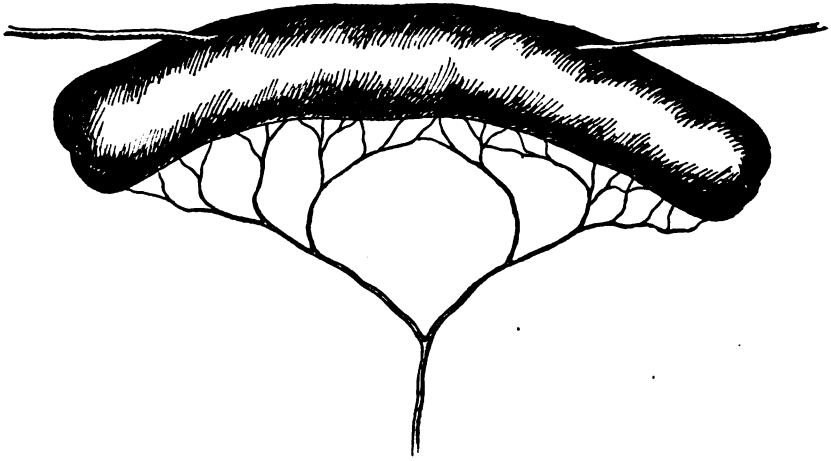

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Fig. 5. Transplanted piece of gut with its ends invaginated, and the cut ends of an ureter planted into the gut.

Dr. Bacon's second view to obliterate the united septum between the rectum and segmoid wall with a clamp, is also new and valuable.

Dr. Bacon's ingenious device for reuniting a cut ureter by means of a transplanted portion of gut is original and novel. But experiment and observation alone can settle that, for it is impossible to say with our present knowledge of physiology what would be the subsequent life of a transplanted piece of gut, with urine continually running over its mucous membrane.

Dr. G. C. KRIGIER: I agree with Dr. Robinson that this idea is a very ingenious one, but we must consider whether we are not run-

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ning a great risk of depriving this piece of intestine of its nutrition by the twisting of the mesentery. If a small piece of intestine has been resected there is only a small strip of mesentery and that can be easily twisted so that blood cannot flow down to the intestine. If this is not the case, some loops of intestine may get between it and the intestine which it approximates and in that way twist the mesentery with the same result. Of course, it remains to be proven by experiments whether the resected intestine will live or not.

Dr. CARL BECK: Some time ago a German experimenter implanted both ends of the ureter in the abdominal wound and in this way had it under control until it was healed. Afterward he formed a ureter by a plastic operation through the skin simply forming a groove afterward uniting the skin over it and either leaving it immediately under the surface or dropping it into the deeper parts of the abdominal wall.

Dr. HENRY GRADLE: It occurs to me that sufficient experiment may develop facts which may prove a serious objection to any operation excluding a portion of the bowel from its continuity with the rest of the intestines, leaving it in the abdominal cavity. Some recently published experiments have shown that pieces of the gut excluded in this way and either closed at both ends or reunited in a ring continue to form feces and afterward became very much distended with fecal material. As such material contains germs in innumerable quantities, and possibly of the pathogenic sort, it may be found unsafe to leave them in the abdominal cavity.

DR. J. B. BACON, in closing the discussion, said: I explained Dr. Krigier's point as to the possibility of hernia; the piece is never cut from a distant loop of intestine, but you must take the mesentery and intestine which is lying in proximity to the rectum. They are lying side by side and all you have to do is to irritate their edges with some rough instrument and they will grow together, it is utterly impossible for that piece to twist or for hernia to occur; it gets its nourishment from blood vessels running direct to the part. As to Dr. Beck's plan of uniting the ureter; experiments have been made which show that wherever the skin was turned in a calculus formed and obstructed the ureter and destroyed the whole operation; wherever hairs came in contact with the urine every one formed a calculus and obstructed the channel made through the abdominal wall. So while it may be a success in some cases it will not always be so and unless this operation helps us out we are still at a loss to know what to do with the ureters. As to Dr. Gradle's point in reference to formation of

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feces in the part transplanted for the ureter, that is only experimental. Dr. Robinson in his three years' excellent work in abdominal surgery has time after time cut off a part of the intestine, and left it full of fecal matter invaginating the ends and leaving it in the abdominal cavity. It did not fill up with more feces but remained there and the dog got well and lived for weeks seemingly in perfect health and when killed there was found to be perfect union of the invaginated ends, and the bowel still filled with feces.

Dr. F. A. Stahl read a paper on "Nonintubation of Trachea Following Tracheatomy" and exhibited a patient. See page 256.

Dr. J. W. NILES: Some twenty years ago Dr. David Prince, of Jacksonville, first introduced the idea of performing tracheotomy without a canula, and kept the trachea open with a wire ligature passing all the way around the neck, from each side of the tracheal wound. I also saw that operation done successfully in a case of stenosis after swallowing caustic. I do not think it would be right to open the treachea and not use either a ligature or a canula, and if one canula caused irritation another one should be tried.

Dr. A. H. BURR: I can conceive how a canula is a source of danger from irritation and extension of the imflammation to the trachea and the smaller bronchi, and the development of what might be called traumatic pneumonia, but it seems to me the doctor has passed very lightly some other cases of sudden heart failure and a fatal termination from the absorption of the ptomaines themselves and the paralyzing effect they have upon the nerve centers.

Dr. F. A. STAHL, in closing the discussion, said: I will admit that the influence of the absorption of ptomaines is something we should always bear in mind, but take the formation of pus in any cavity, or any other influence which ought to be removed, and endeavor to remove it in order to prevent its consequences, and in that way uphold the vital energies of the patient and increase the physiological resistance of the system. As to the introduction of a small canula, or one that will not irritate, it seems to me the same influence will be active and irritating whether the canula be large or small, and there will be, little by little, extension of the inflammation. Hereafter in tracheotomies I shall not intube from the beginning if I have a nurse whom I can trust, and if not I shall intube only until I can get such a nurse.

On motion, the Committee on Directory for Nurses was instructed to render a report of its work at the annual meeting, this report to be made a part of the regular order of business.

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Dr. Hosmer gave notice that he would move appropriations from the treasury as follows: For Secretary, $200; for Treasurer, $100; for Editor, $200.

The application of Dr. F. Wylie Nash was read and referred to the Committee on Membership.

On motion, the Society adjourned.

JUNIUS C. HOAG,
Sec'y.

Regular Meeting at Orpheus Hall, March 20th, 1893.

President HOTZ and later Dr. RIDLON presiding.

The minutes of the two preceding meetings were read and approved.

The Committee on Membership reported favorably on the applications of Drs. A. E. Froom, 3726 La Salle Street; F. W. Nash, Big Rock, Ill.; S. J. Beeson, 304 Washington Boulevard; Sidney Kuh, Central Music Hall; L. B. Hayman, 70 State Street, and J. D. Hartley, 1204 Milwaukee Avenue, and on motion the Secretary cast the ballot of the society for their election.

Dr. F. D. OWSLEY being absent, a paper by him entitled, "Two Cases in which the Initial Sclerosis of Syphilis occurred in the Fauces," was read by Dr. J. H. Coulter. See page 260.

Dr. ARCHIBALD CHURCH reported a case of acromegaly, and exhibited the patient, drawings photographs and a plaster cast. The paper was discussed by Dr. Moyer, who exhibited photographs, cuts and drawings, and by Drs. Hessert, Boughton and Church.

Dr. E. J. DOERING read a paper entitled, "Pyoktanin in Diphtheria." See page 248.

Dr. J. C. HOAG: My attention was first called to the use of pyoktanin by a paper of President Hotz, read before this society about a year and a half ago. He reported the use of the agent in cases of eye disease, and I think he was only moderately enthusiastic about it. Since then it has come into much more general use, but I have not had very great opportunity to observe its effect. I was fortunate enough to see its action in the case of two of Dr. Doering's patients. It was used in young children, and the application to the throat seemed to be not especially disagreeable to them, they were not rebellious to the treatment at all. I thought the effect produced a very excellent one. I thought it was an especially good agent to use because of its marked color, as one can readily see what portions of the throat are reached by the

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solution. In the current literature of the day we find pyoktanin recommended in all manner of cases. Dr. Doering has alluded to its use in malignant growths, and I have seen reports of a number of such cases. It is hard to believe that an agent of this sort, however valuable an antiseptic it may be, can be useful in all manner of diseases. But the first reports we get of any new agent are apt to be exaggerated somewhat.

However, we have in pyoktanin an agent which is evidently markedly antiseptic in its action, and possesses the especial merit of being nonpoisonous. I think we shall have excellent results from its use.

Dr. W. E. CASSELBERRY: I think Dr. Doering is to be congratulated on his discernment in selecting for trial from among the tiresome number of remedies recently proposed for diphtheria, one which seems indicated from the standpoint of rational therapeutics. He is also to be congratulated upon the classification of his cases in the report which he makes. So-called diphtheria is certainly to be divided into two classes; true diphtheria, caused by the Loeffler bacillus, and pseudo-diphtheria, caused by streptococci. When one hears reports of diphtheria, unclassified, running up into the fifties and hundreds of cases without a death, one must consider that such observers have been so fortunate as to encounter a series of cases of pseudo-diphtheria, and not to have treated in the main, the graver cases which are caused by the Loeffler bacillus. The real scientific aspect and definite results of recent studies of this subject are truly admirable. Clinicians, familiar with bacteriological technique, and possessed of a service in diphtheria wards of hospitals, are best equipped for the work. I would mention the report of Baginsky, of Berlin, and especially the thorough and exhaustive investigation by William Hallock Park, of New York, reported in recent numbers of the *Medical Record*. Dr. Park reports two series, embracing 127 cases of true diphtheria in which the diagnosis was made by clinical observation as far as possible and verified by bacteriological research; having an average mortality under approved treatment of 31 per cent.

In other series of 59 cases of streptococcus diphtheria, therefore pseudo-diphtheria, in which the same treatment and the same means of diagnosis were used, and in which a diffuse exudate not limited to the tonsils alone, that would ordinarily be called diphtheria, the mortality was about 3 per cent. Showing under the same treatment a very decided difference, according to the

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kind of diphtheria that is treated. I think before we can not rely upon statistics of membranous pharyngitis called diphtheria, the cases must be separated into these two categories. I believe this can be done by very critical and close observation clinically, but I believe it can be done more easily bacteriologically, and with demonstrable precision. The sooner we get our bacteriological apparatus ready and study the technique of isolating the Loeffler bacillus and distinguishing streptococci, will we be able to furnish the profession with statistics of some value. Dr. Doering's paper appears to me the more valuable, because from a clinical standpoint, at least, he has done this. He has classified his cases as far as possible into true diphtheria, pseudo-diphtheria, and follicular tonsillitis.

Dr. J. C. HOAG reported a "Successful Method of Treating Follicular Tonsillitis." See page 254.

Dr. J. F. OAKS: I believe that some of the statements of Dr. Hoag ought not to go unchallenged, at least as far as the differential diagnosis is concerned between so-called acute follicular tonsillitis and diphtheria. The literature of to-day certainly does not bear the doctor out in his statement that it is a familiar disease, and that a differential diagnosis is readily made. The very innocent appearance of lacunar or punctate tonsillitis may be the incipient stage of diphtheria, with or without a coalesence of these punctated masses. Again, the so-called acute follicular tonsillitis at the present day, according to current literature, is supposed to be a local manifestation of an infectious disease, therefore the treatment should be as much constitutional as local. If it is the local expression of an infectious disease, the local treatment mentioned by the doctor will not suffice. It is mentioned by Bosworth and others that the majority of cases of faucitis or pharyngitis, where the tonsils are hypertrophied, presenting the clinical variety of lacunar tonsillitis, are largely due to the rheumatic poison, and are much benefited by the application of remedies that we have found of service in both the acute and chronic forms of rheumatism, like sodium salicylate, salol and salophen. The treatment as outlined by Dr. Hoag is an excellent one, but will find its limit in the subacute exacerbations of lacunar form of chronic tonsillar hypertrophy.

Dr. W. E. CASSELBERRY: Confusion results from failure to make understood the fact, which I think cannot be disputed, that there are at least two forms of acute follicular tonsillitis. The first form is very frequently seen, and is especially observed in those

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children or adults who already suffer from chronic hypertrophic tonsillitis. Such individuals are prone to accumulations in the lacunae and ducts of the tonsils of fetid cheese-like masses composed largely of epithelial debris, together with hosts of microörganisms which may or may not have something to do with this formation. These excretions having accumulated for a time are apt to originate, or at least serve as the predisposing condition to an attack of acute follicular tonsillitis, which I have elsewhere designated as simple acute follicular tonsillitis. There is little or no fibrinous exudate in this disease, nothing which is actually adherent to the orifices of the lacunae of the tonsils of the nature of pseudomembrane, of however delicate an appearance, but there appear here and there, perhaps many, perhaps only one or two, projecting cheesy globules, and the tonsil presents an acute exacerbation of its chronic inflammation, the patient complaining of sore throat, and with elevation of temperature. With such simple cases, and whenever the cheesy accumulations are seemingly the predominating factor, acting, like foreign bodies, to excite and maintain irritation, I have practiced for years, as part of the treatment, the method which Dr. Hoag has described. I pick out the cheesy globules, with any suitable instrument, and with rapid benefit to the patient. I recall one instance of a lady suffering from this form of the disease, being subject to recurrent attacks, as is usual, whose throat was exceedingly sensitive, and who, in consequence would not permit the passage of any sort of instrument, notwithstanding the fact that I wished to pick out these cheesy globules. So, under pretense of depressing the tongue by a spoon, I gave the handle of the spoon a strong sweep up one tonsil and down the other, and pressed off in that manner several of these masses, with the result of immediate improvement. My patient informed me the next day that a miracle had been wrought, that whereas the attack usually lasted several days, her throat was easy.

The other form of acute follicular tonsillitis, and that which is decidedly the most frequent, is entirely a different matter, and the method of treatment just described is usually inappropriate. It is pseudo-diphtheria, limited to the tonsil, and is due, according to our best bacteriologists, to a streptococcus which infects the lacunae of the tonsil, and produces a punctated exudate which may or may not coalesce, and which is a veritable pseudo-membrane. This form of tonsillitis I have described elsewhere under the name of acute infectious pseudomembranous tonsillitis. It is a bulky

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name, and a shorter one is proposed by Dr. Bosworth, "croupous tonsillitis," by which he means that this exudate is limited to the tonsil; in other words, tonsillitis of a croupous pseudomembranous character, and not a genuine Loeffler bacillus diphtheria. This form of tonsillitis I believe can usually be distinguished with tolerable certainty by the clinical aspect of the case by critical examination and by taking care to swab away mucus and pus which may cause the punctated exudate to appear coalesced and formed into a diffuse membrane. But between these two types of tonsillitis are observed cases of mixed variety which present all degrees of approximation to one or the other type; and it is certain that in rarer instances a positive diagnosis cannot be made either between simple follicular tonsillitis and infectious pseudomembranous tonsillitis, or these, on the other hand, from true diphtheria without the aid of bacteriological examination.

DR. J. C. HOAG, in closing the discussion, said: I see no occasion to change any of my statements. One speaker saw fit to go into the subject of diphtheria, which I did not propose to discuss at all. To be sure I stated that I thought follicular tonsillitis could in the majority of cases be distinguished from diphtheria, and I still think so. Of course there are cases that shade off so that an ordinary clinical diagnosis is not sufficient, but the point of my remarks was simply to emphasize the importance of local treatment in cases of this sort. You use your gargles and sprays and swabs and washes on such cases as I referred to, but you do not get at the seat of the trouble at all, and when you take a probe and work at these masses you find that they extend into the substance of the tonsil an eighth or a quarter of an inch. The removal of these masses is frequently followed by as prompt and marked improvement as the opening of an abscess and its evacuation. These little masses of course may not be dangerous to life, but they will make a patient very miserable for a week or ten days under the ordinary treatment, and I am sure in the majority of the cases I can cut short the disease by about one-half. The treatment is rational; no one can take exceptions to it whether he thinks it as useful as I do or not.

The presence of these putrefying masses with their horrible fetid odor cannot be otherwise than prejudicial to the patient's health. They are not removed by the mere application of antiseptics by means of spraying and swabbing, but they are readily enough dug out with such little instruments as you all carry in your pocket cases. I have heard patients say they knew this, that

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they had pressed these out with their fingers. A lady told me yesterday that for a good many years she has made a practice of taking broom straws and picking these things out of her own tonsils. But I have not seen any mention made of this practice in the literature and I am sure it is of enough importance to deserve honorable mention in every work on the practice of medicine.

Drs. Thomas and Wescott were appointed a committee to audit the Treasurer's accounts, and Drs. Jaggard, Earle and Henrotin were made a committee to solicit subscriptions to the Semmelweiss Memorial Fund.

On motion, the society adjourned.

JUNIUS C. HOAG,
Secretary.

THE CHICAGO PATHOLOGICAL SOCIETY.

Regular meeting, Feb. 13, 1893.

DR. C. D. WESCOTT, President, in the Chair.

DR. ADOLPH MEYER read a paper entitled Psycotherapeutics, which was discussed by Drs. Lyman, Cleveland, Wescott, and Meyer.

DR. HENRY VAN BUREN read a paper on the subject of Treatment of Colles' Fracture by Extension. See page 271.

DR. HENRY M. LYMAN: When a student it was thought that placing the hand in such a way that its weight would make a constant traction was sufficient; that was our custom in treating such cases, and we certainly had good results. The arm was placed between straight splints. The under side of the arm was supported by a band of adhesive plaster passing under the wrist and another one near the elbow, so that the arm was in a sort of cradle.

DR. JOHN M. DODSON: The term Colles' fracture has been applied to almost everything in the way of fracture in the vicinity of the wrist joint. As I understand it the classical description of Colles' fracture is a fracture of the radius about an inch above the joint, with a dislocation of the ulna; but that is simply a technical point. The method with which I have treated a few cases has been with the Levis' splint, which is moulded of perforated copper or felt to fit the under side of the arm and wrist, the hand being turned down in a manner which corrects the deformity very well, and, fortunately, in the cases I have had, very little deformity has resulted and there has been but little impairment of function. I think Dr.

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Van Buren's method of producing extension is substantially the same as Sayre uses so largely in making extension of the various joints, but it is difficult to maintain extension for any considerable length of time by a fixed splint of this character; the adhesive plaster will slip, and while we may get a very considerable degree of extension in the beginning the constant tension of the muscles upon the plaster will cause it to give unless there is some method of keeping up a constant and increasing extension, such as a weight for instance.

Dr. J. M. PATTON: It appears to me that the fracture exhibited to-night is not an especially good result for Colles' fracture. It may be an excellent result for that particular fracture; I have no criticism to offer there, but looking at it as a Colles' fracture I would not call it an extra good result as far as the deformity goes.

I do not believe there ever was a better dressing for Colles' fracture than the one mentioned by Dr. Lyman. If you set the fracture perfectly straight in an old-fashioned splint and then allow the weight of the hand to fall of itself you will have as perfect a result as is ever obtained in Colles' fracture.

Dr. GEORGE W. NEWTON: A result where the functions are regained is a good result. I believe that in reducing the fracture it is best to drop the hand down. I have found that deformity can be overcome by sharp flexion and extension, extension alone will not do it.

Dr. FRANK N. COCHEMS: I recently saw the result in a Colles' fracture which was two years old, and the deformity was almost exactly what you see in this case.

Movement in the fingers and hand was not impaired, but the trouble the patient complained of was in pushing anything upward the weight coming on the palm of the hand and fingers when the hand was extended. Such work was very tiresome and sometimes painful.

I think that will be the result in this case.

This fracture is still a recent one, however, and may become stronger in time, but I think the result is not a good one.

At the County Hospital our treatment have been first reduction, the impaction of the fragments of the radius, if any, thoroughly broken up, then retention with an anterior and posterior splint. Considerable padding to allow for swelling. When swelling has disappeared splints reapplied with hand adducted, fingers free and patient instructed to move them.

Dr. C. D. WESCOTT: Dr. Cochems referred to a point I was

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going to make, that is the absolute necessity in order to obtain a good result of remembering that in most cases of fracture at the lower end of the radius we have a dislocation of the ulna, and that if we do not get a reduction of that dislocation we are hampered in the treatment. I have observed that if we get a perfect restoration of the fragments in this fracture, reduction is maintained by simply allowing the hand to hang in a prone position. I have tried repeatedly allowing the patient to hold the arm in that way, and reduction is maintained without any dressing whatever.

Exhibition of Aortic Aneurism.

Dr. Henry M. Lyman: I would like to exhibit this specimen to-night as it is fresh and not in a condition for preservation, having been sent in from the country simply wrapped in a piece of cloth. The case was one that I reported at our last meeting when we were speaking of mediastinal tumors. You will remember I related the case of a patient who had a mediastinal abscess that was evacuated through the trachea, that he recovered from the abscess discharge, and after something like a year elapsed, he again began to cough. I made an examination last summer, and found that there was dullness appearing upon the right side of the spinal column between the column and the right scapula and I feared that there was another abscess about to form. The patient returned to the country, but kept growing worse and died last week. His physician succeeded in getting an autopsy, which he said was rather imperfect, and he sent me this specimen, which proves to be an aneurism of the ascending portion of the arch of aorta.

Adjourned.

E. S. Pettyjohn, Secretary.

Regular Meeting, March 14, 1893.

Dr. J. M. Patton in the chair.

Dr. L. C. Weeks presented a specimen fracture of the radius and ulna.

The former owner of this specimen was a young man aged twenty, a painter, who was admitted to the Presbyterian Hospital on November 8th. Eleven days before he had been working on a scaffold about four feet from the ground, and fell, and alighting on the palm of his hand with his arm outstretched. He immediately experienced considerable pain at the wrist and elbow, and went to see the doctor, who told him there was a fracture of the arm at the

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elbow and wrist, and who applied a short anterior and posterior splint, as the young man said, very tightly, although there was no pain because of the tightness. The arm was not touched again for eight or nine days, when his mother noticed odor coming from the arm, and upon removing the bandage it was seen that a considerable portion of the anterior and posterior surfaces of the forearm was gangrenous. The doctor advised him to go to the hospital as soon as possible. On admission to the hospital, an area of blackness was found on the anterior surface of the forearm corresponding to about one-half the surface, and one on the posterior surface about one-third of the entire surface. An area of normal tissue ran down the radial side of the forearm to the hand, and on the ulnar side there was a short tongue of normal tissue with a deficiency of about two inches between the end and the hand. The hand was considerably puffed up and edematous. The necrosed tissue was cut away with the sissors and irrigated with bichloride. The bones were denuded of periosteum about half their length from the wrist upward. Portions of tissue the entire thickness of the arm, with the exception of the bones, were removed so that the only normal soft tissue extending the whole length of the arm was the small strip on the radial side. There was seen to be a fracture of the radius close to the wrist, an ordinary Colles' fracture, and there was slight crepitus detected at the elbow, though the extensive fracture of the ulna was not suspected. His temperature on admission to the hospital was 101° F., pulse about 90, respiration normal. Four days afterward the arm was amputated four inches above the elbow, the patient making a good recovery in about three weeks.

Shortly after the amputation I investigated the condition of the arm and was surprised to find such extensive fracture of the ulna. When the man came to the hospital the pulsations of the artery on the radial side could be detected, but not on the ulnar side. The most prominent fracture was the linear one extending from the olecranon down to the middle through the entire bone from the middle of the anterior surface to the posterior border. Attached to the tendon of the biceps I found a small piece of the coranoid process broken off, and I have another small piece that I have not identified. Here is a portion of the fracture from the radius, and here the epiphysail extemity, and I have also the epiphysail extremity of the ulna. As the boy was twenty years old the noncalcification of the cartilagenous pieces between the epiphyses and the shaft was perfectly normal.

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I have had these bones about five months, but in looking them over this evening I discovered another small fracture on the upper end of the radius, the outer and upper portion of the articular surface is somewhat cracked and impacted. The amount of necrosis seen on the arm when he came into the hospital is suggestive of the cause from the fact that the ulnar artery supplies the greater portion of the forearm, and it might be supposed that the ulnar artery was either ruptured or pressed upon by one of the fragments, or the pressure of the splints might have been so great as to cause the entire necrosis, both anterior and posterior. The humerus was entirely normal. The fracture of the external portion of the split olecranon and the somewhat oblique fracture of the portion that has been split off is suggestive of the way the man fell. There was probable complete extension of the elbow when he struck the ground, with extension of the hand causing Colles' fracture; the extension of the elbow causing the fracture of the coronoid process and the linear fracture, while the oblique fracture and fracture of the olecranon were caused by the somewhat twisted motion caused by the impetus of his body, which in connection with the articular end of the humerus pressing upon the ulna and the lateral ligaments caused the opening to one side of the frangments, and the splitting off of the external fragment of the olecranon.

Dr. R. N. HALL: I would ask what was supposed to be the cause of the gangrene.

Dr. L. C. WEEKS: I think the supposition of the surgeon was that the splints caused the gangrene, although he did not know anything of the fractures of the coronoid, before the operation. The excessive amount of fracture at the elbow suggests laceration or rupture of the artery.

Dr. J. M. PATTON: Colles' fracture depends more on the direction than the amount of force, such a peculiar fracture as this linear fracture must have taken a great deal of force to produce it. Colles fracture sometimes occurs with very little force, and sometimes requires a great deal.

Dr. R. S. SLAYMAKER reported a case of calcified gall bladder and exhibited the specimen. It was discussed by Drs. Myer, Dodson, Pettyjohn, Hall, Patton and Slaymaker.

Adjourned.

E. S. PETTYJOHN, Secretary.

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THE COOK COUNTY HOSPITAL CLINICAL SOCIETY.

Regular Meeting, March 16th, 1893.

Dr. T. N. COCHEMS presiding.

The minutes of the previous meeting were read and approved.

Dr. A. R. THOMAS exhibited two cases of ichthyosis.

Dr. A. F. SIPPY showed: 1. Case of multiple fibromata and gangrene of finger and 2. Fracture of humerus caused by and muscular action, considerable enlargement of lower fragment.

Dr. H. F. KORTEBEIN showed; 1. Case of aortic insufficiency and stenosis and mitral regurgitation; 2. Aortic stenosis and mitral regurgitation.

Dr. PATTON would treat such heart cases with calomel to relieve the dropsy, with opium and cardiac tonics.

Dr. A. A. KNAPP presented a case of abscess of liver, from which ninety ounce of pus had been evacuated about six weeks previously. Patient recovering. Discussed by Drs. Durr and LeCount.

Dr. D. D. BISHOP reported a case of thrombosis of popliteal artery and vein, caused by crushing injury. Signs of gangrene of leg appeared and a thigh amputation was performed at about the middle portion. This was followed by extensive sloughing of the flaps. Specimen was demonstrated and showed the clots in situ.

Dr. COCHEMS thought that a flap by transfixtion in patients of low vitality was preferable to the ordinary skin flap to save time and prevent subsequent sloughing of the flaps.

Dr. COCHEMS demonstrated several typical specimens of nephrolithiasis, one kidney containing twenty stones.

New officers were elected as follows: A. F. Sippy, Secretary; R. B. Oleson, Recording Secretary. Executive committee, E. R. LeCount D. D. Bishop, F. A. McGrew.

WILLIAM HESSERT,
A. F. SIPPY, } Secretaries.

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Reviews.

A Text-Book on the Theory and Practice of Medicine. By American Teachers. Edited by William Pepper, M. D. In two volumes, Vol. I. Philadelphia, W. B. Saunders. Royal octavo, 910 pages. Cloth. $5 a volume.

The entire tendency of the age seems to be for the production of works showing the combined experience and judgment of those who are eminent in the various departments that come under the given title. In this respect a number of notable works have recently appeared and to the list is now added this very admirable treatise. The ability of the editor, as shown in former undertakings of this sort on an even larger scale, need not be stated. Experience there obtained has led to a volume that is well assimilated and thoroughly harmonious. The book opens with a chapter on Hygiene by Dr. J. S. Billings, which is somewhat unique in its way, extremely practical in its bearing and in its appropriate place. Dr. Francis Delafield treats of the Kidneys and Lungs; Dr. R. H. Fitz, who has given us the most advanced work in regard to the pancreas, sustains his admirable reputation in the chapter on the Peritoneum, Liver and Pancreas. James W. Holland, The Chemistry and Miscroscopy of the Urine; E. J. Janeway, Heart, Aorta, Arteries and Veins; Henry M. Lyman, Diathetic Diseases; William Osler, Blood and Spleen; William Pepper, Fevers; W. Coleman Thompson, Tuberculosis; W. H. Welsh, Inflammation, Embolism, Thrombosis, Fever and Bacteriology; Thomas H. Whittaker, the Eruptive Fevers and Acute Infections; James W. Wilson, Diseases of the Air Passages and the Pleura; while the chapters on Nervous Muscular and Mental Diseases, are written in conjunction by Horatio C. Wood and William Osler. Unlike some former works of this sort, the articles are not anonymous and their weight can therefore be more accurately estimated, and with more satisfaction to the reader. All recent advances in bacteriological study regarding the origin of various diseases are here to be found, and their relation to prevention and cure is fully set forth. Methods of diagnosis, especially recent and exact methods, are invariably brought forward with prominence but not in a manner to overbalance those of more ordinary character. The treatment as a rule is full and satisfactory, without too much stress being laid upon new drugs, except those which have been firmly established as to their utility.

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On the whole the work is highly satisfactory and is commended to the practitioner particularly, although for the student it has many points of advantage.

THE DISEASE OF THE NERVOUS SYSTEM. A text-book for Physicians and Students, by Ludwig Hirt, Professor at the University of Breslau. Translated by Drs. August Hoch and Frank R. Smith, Assistant Physicians to the Johns Hopkins Hospital with an introduction by William Osler. Illustrated. New York, D. Appleton Co., 1893. Octavo, 684 pages.

To the English and American reader this work will be distinctly acceptable. There can be no question of the value of looking at a subject from different standpoints, and it will be found that while the attitude of the author is markedly German and the subjects as outlined by him are seen through German eyes, and the bibliography which is attached to each article covers practically only German writers, yet he is not a slavish follower of former German text-books, and the arrangement will appear at once practical and radical to the reader, and quite unlike anything to which we are accustomed in this country. Commencing with diseases of the brain and meninges he then takes up diseases of the cranial nerves and finally of the brain proper. A somewhat similar arrangement is adopted with regard to diseases of the cord, though tabes dorsallis is very properly described with general paralysis of the insane under the head of diseases of the general nervous system with known anatomical basis. Each topic is introduced with sufficient histology and anatomy to make the following exposition perfectly clear to the student, and the style is at once lucid and vigorous.

Occasionally the translators have allowed the German idiom to crop out, but for the most part their task has been admirably accomplished. The illustrations, which are clear and well executed, are for the most part new to American readers and embrace very many cuts that are personal to the author. In the matter of treatment perhaps the American reader will derive less satisfaction than from some other works, though measures of distinct value are never omitted. As the author presupposes a considerable knowledge of general medicine and detail on the part of the reader the work will be found of more value to practitioners and specialists than to students.

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HUMAN ANATOMY. A complete systematic treatise by various authors, including a special section on surgical and topographical anatomy, edited by Henry Morris, M. A. and M. B., London, etc. Illustrated, 1286 pages, Philadelphia, P. Blakiston, Son & Co., 1893. Cloth, $7.50.

Gray has at last a powerful rival, in many respects superior to the old time-honored text-book. Other text-books of anatomy have from time to time appeared and have had a measure of success, but Gray has still kept its place. Morris' Treatise on Anatomy seems destined to supplant Gray by reason of its advantages to the student as regards system, clearness, conciseness, wealth of illustration and description. The various sections have been written by authors of world-wide fame and their individual labors have been combined into a most harmonious whole, a treatise whose equal we are not likely to see in our generation.

The work is composed of sections on Osteology, by J. Bland Sutton; Arthrology, by Henry Morris; Myology, by J. H. Davies, Calley; Blood vessels and Lymphatics, by W. J. Walsham; Nervous System, by H. St. John Brooks; Eye, by R. Marcus Gunn; Ear Tongue, Nose, Thorax and Organs of Digestion above the Diaphragm, by Arthur Hensman; Abdominal Viscera, by Frederick Treves; Urinary and Reproductive Organs and Regions of the Abdomen, by William Anderson, and Surgical Topographical Anatomy, by W. H. A. Jacobson.

The arrangements of the subjects for study and reference is admirable, the divisions and subdivisions well and clearly marked; the illustrations clear and yet not diagramatic. The publishers are to be congratulated upon the excellence of the work done in their especial department. The editor need have no fears that the treatise will not adequately meet the requirements of those for whom it was written.

A SYSTEM OF GENITO-URINARY DISEASES, SYPHILOLOGY AND DERMATOLOGY, BY VARIOUS AUTHORS. Edited by PRINCE A. MORROW, A. M., M. D. With illustrations. In three volumes. Vol. I. Genito-Urinary Diseases. Royal octavo, 1074 pages. New York, D. Appleton & Co., 1893. Cloth $6.50.

The first volume of this work, which promises to be one of the greatest value, takes up the genito-urinary diseases. The list of contributors contain many well-known names, among which we may mention WILLIAM T. BELFIELD, JOHN A. FORDYCE, RAYMON GUITERAS, S. LUSTEGARTEN, WILE MEYER, PRINCE A. MORROW, WILLIAM K.

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OTIS, J. WILLIAM WHITE and JOHN WYETH. The editing of the manuscript from so many sources has been most ably and thoroughly accomplished and the work appears to be very judiciously and well-balanced throughout, which cannot be said of many similar undertakings. The various topics are considered in a very thorough and at the same time practical and useful way, most of them being especially strong on treatment. Where there is so much to praise the task is difficult, but the chapters on functional disorders of micturition, on renal fever, on the use of the cystoscope and urethroscope, on tuberculosis of the genito-urinary tract, on diseases of the seminal vesicles and upon functional disorders of the male sexual organs, are worthy very careful attention. The last named is particularly well and ably handled by Dr. Morrow. The illustrations are adequate, considerable use has been made of halftone prints with the most satisfactory results, and occasionally colored plates are introduced, not merely for show but where required by the nature of the subject. The work, while being practically encyclopedic, is in a convenient form for reference and study and unquestionably brings the various subjects up to date.

AN INTRODUCTION TO THE STUDY OF DISEASES OF THE SKIN. By P. H. PYE-SMITH, M. D., F. R. S., F. R. C. P., Physician to the Department of Cutaneous Diseases in Guy's Hospital, London. 12mo., pp. 407. With 28 illustrations, 18 of which are colored. Cloth $2. Philadelphia: Lea Brothers & Co., 1893.

Dr. Pye-Smith modestly styles his book an introduction. So far as the text goes, it is more complete than many so-called text-books of the subject. This volume is a reprint of the chapters on dermatology which the author furnished to complete Fagge's Practice of Medicine, and which he has revised and enlarged. The author adheres closely to Guy's Hospital methods, and does not claim to do more than to record what he himself has observed. The Vienna School and its methods are, however, occasionally referred to. The chief defect in the book is the paucity of illustrations, of which there are only 28, and this in a book on skin diseases of 407 pages. The illustrations which exist are rough and inferior. On pages 266 and 315 are notable examples of so-called "colored illustrations."

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HAND BOOK OF THE DIAGNOSIS AND TREATMENT OF DISEASES OF THE THROAT, NOSE AND NASO-PHARYNX. By CARL SEILER, M. D., Instructor in Laryngology and Lecturer on Diseases of the Upper Air Passages, in the University of Pennsylvania, etc. Fourth edition, thoroughly revised and greatly enlarged. Illustrated with two lithographic plates, 12 mo., 414 pages. Cloth, $2.25. Philadelphia: Lea Brothers & Co., 1893.

Dr. Seiler's work is so well-known that an extended review is unnecessary. The fourth edition contains a great deal of additional matter, notably chapters upon influenza and American grippe or epidemic myxoid edema and intranasal neoplasms. The general systemic disorders which have dominant throat symptoms are not considered. The book is concise, practical, and well-adapted to the needs of the laryngoscopist. The mechanical part of the work has been carried out by the publishers with their usual painstaking care.

THE YEAR BOOK OF TREATMENT FOR 1893. A Critical Review for Practitioners of Medicine and Surgery. A Series of Contributions by Twenty-two Writers. In one 12 mo. volume of 500 pages. Cloth, $1.50. Philadelphia: Lea Brothers & Co., 1893.

The ninth edition of the year-book possesses the good points of the earlier editions and maintains the high reputation of this series. To the twenty subjects included in last year's book two have been added, Anesthetics, reported by Dr. Dudley Buxton, and Public Health and Hygiene, discussed by Prof. W. H. Corfield. A selected list of new books and carefully prepared indices of authors and subjects add to the value of this most valuable annual contribution to medical literature.

DISEASES OF THE SKIN. A Manual for Students and Practitioners. By CHARLES C. RANSOM, M. D., Students' Quiz Series, edited by Bern. B. Gallandet, M. D. Cloth, 201 pages. Philadelphia: Lea Brothers & Co., 1893. Cloth, $1.00.

The thoroughness, conciseness and practical value to the student of the Quiz series is well maintained in this little book. For some unexplained reason the classification of diseases of the skin follows instead of preceding their consideration. Several pages at the end of the book are devoted to special additional formulae for use in skin diseases.

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MODERN HOMEOPATHY: ITS ABSURDITIES AND INCONSISTENCIES. By WILLIAM W. BROWNING, A. B., LL. B., M. D., Brooklyn, N. Y. pp. 32. Philadelphia: 1893.

This essay was awarded the prize of one hundred dollars offered by Dr. Geo. M. Gould, of Philadelphia. It presents briefly, and yet clearly, the peculiar tenets of homeopathy, and out of the mouth of the homeopath convicts him of irrationality, inconsistency and absurdity. The pamphlet is designed for distribution by physicians, in order to disseminate more enlightened views upon the subject. Copies must be ordered of Dr. Gould, 119 South Seventeenth street, Philadelphia, at the rate of seventy-five cents a dozen.

PAMPHLETS RECEIVED.

MASSAGE. A lecture. By DR. JOHN KERCHER.

TREATMENT OF CHOLERA. By ELMER LEE, M. D. *Medical Record*, Dec. 17, 1892.

REPORT ON TYPHOID FEVER. By WILLIAM HESSERT, M. D. *N. Am. Pract.*, Feb., 1893.

MEDICAL USE OF ERGOT. By KATHERINE MILLER, M. D. Reprint Trans. Ill. State Med. Soc., 1892.

DISCUSSION OF DR. VAUGHN'S PAPER. By BAYARD HOLMES, M. D. *Journ. Am. Med. Assoc.*, Dec. 3, 1892.

A TROPICAL TREATMENT OF BRONCHITIS. By EDWIN J. KUH, M. D. CHICAGO MEDICAL RECORDER, Mar., 1893.

BLOOD EFFUSIONS BETWEEN THE RETINA AND VITREOUS BODY. By F. C. HOTZ, M. D. *Annal Ophth.*, Jan., 1893.

TECHNIQUE OF ABDOMINAL AND PELVIC OPERATIONS. By WILLIAM EASTERLY ASHTON, M. D. *Med. Bul.*, Jan., 1893.

RIPENING OF IMMATURE CATARACTS. BY DIRECT TRITURATION. By BOEONE BETHNAN, M. D. *Am. of Ophth.*, Jan., 1893.

LACERATION OF POSTERIOR CRUCIAL LIGAMENTS OF THE KNEE JOINT. By A. E. HOADLEY, M. D., *Chicago Clin. Rev.* Dec., 1892.

A REMARKABLE CASE OF COMPLETE PARALYSIS OF THE INTEMUS AND EXTEMUS OF EACH EYE. By F. C. HOTZ, M. D. *Arch. of Ophth.*, No. 1., 1893.

THE THIRD YEARS' WORK AT THE CLINIC FOR DISEASES OF THE RECTUM IN THE NEW YORK POST GRADUATE HOSPITAL. By CHARLES B. KELSEY, M. D. *N. Y. Med. Jour.*, Feb. 18, 1893.

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News Items.

CASTRATION for rape as a penalty is proposed in a bill introduced into the Texas legislature.

DR. S. DAHL has moved his residence to 738 W. North Ave., with an office at 465 Milwaukee Ave.

THE TENNESSEE STATE MEDICAL SOCIETY will hold its annual meeting at Nashville, April 4, 5 and 6.

THE NEBRASKA STATE MEDICAL SOCIETY will hold its annnal meeting at Nebraska City, May 16, 17 and 18.

AN OFFICE HOUR from 12 to 1 o'clock can be secured in the Columbus building by applying to Dr. E. J. Kuh.

SIR WILLIAM MACCORMAC has been elected a Foreign Corresponding Member of the French Academy of Medicine.

SCHOOL CHILDREN'S TEETH in some of the London districts are cared for by a regularly appointed and salaried dentist.

LEGACIES TO PHYSICIANS are not allowed according to the French law, if devised during the illness for which the patient is treated.

"EXPECTORANT" TREATMENT OF PNEUMONIA is advised by the typographical error of a compositor on the *Charlotte Medical Journal.*

THE AMERICAN MEDICAL EDITORS will entertain Mr. Ernst Hart of the *British Medical Journal* at their meeting in Milwaukee next June.

MEDICAL MAYORS are to be found in eleven English towns. Their towns should be well and healthly as well as "Godly and quietly governed."

DR. HOMER M. THOMAS will remove his office May 1, to the seventh floor of the Marshall Field building, corner of Wabash Avenue and Washington Street.

DR. ALBERT L. CLARKE has removed his office and residence from 3521 State Street to 4251 Evans Avenue, corner of Forty-third Street. Telephone Oakland 298.

THE SALARIES OF MEDICAL PROFESSORS, attached to the chairs of medicine, surgery and obstetrics in the universities of Edinburgh and Glasgow are $3,000 per annum.

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MORVAN'S DISEASE, according to Dr. Zumbaco, *Am. de Dermatol, etc.*, December, is leprosy, and Prof. Pitres, of Bordeaux, has found lepra facilli in a case of syringomyelitis.

BEER AND THE CHOLERA BACILLUS do not mutually agree. In Pilsener, Patzenhofer and Münchner beer, the bacillus cannot live three hours; in Berlin white beer, it lives only two hours.

THE INTERNATIONAL MEDICAL CONGRESS will be held in the new Policlinic Hospital, outside the Porta Pia at Rome. The King of Italy has consented to open the congress on September 24.

SULPHONAL is credited by Friedenreich with two cases of lethal poisoning, associated with general muscular paralysis, especially of the throat, and with urine of a peculiar dark red color.

PROF. KOCH arrived in New York, April 7, and came at once to Chicago without stopping to investigate the typhus and other interesting epidemics, including grippe and small-pox in the city by the sea.

THE PENNSYLVANIA STATE MEDICAL SOCIETY will hold its annual meeting at Williamsport, May 16, 17, 18 and 19. The Chairman of the Committee of Arrangements is Dr. H. G. McCormick, of Williamsport.

SIR JOSEPH LISTER has just been elected Associate Member of the Académie des Sciences in Paris. This is the highest honor which the French scientific world has to bestow, and never has it been more nobly earned.

IN WOMEN DOCTORS *The Charlotte Medical Journal* claims that England heads the list with 130 women in practice. This statement must be received with allowance, for in Chicago alone 155 women are practicing medicine.

THE JUDICIARY COMMITTEE of the Massachusetts legislature has reported a bill to prevent the false assumption of academic degrees for advertising and similar purposes. The penalty is $1,000 fine or a year's imprisonment.

Dr. STANLEY P. BLACK, Lecturer on Bacteriology at the Chicago Medical College last month, was seriously ill with diphtheria resulting from infection from bacterial cultures in laboratory work. He has fortunately made a good recovery.

INSTRUCTION IN CHOLERA.—The New York Board of Education has arranged for a special course of free evening lectures on

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cholera. "What It Is and How to Cure It"—to be given in the various public schools by competent physicians.

HYPNOTISM is taught by one Prof. L. H. Anderson, at 182 State St. to all who may apply. Classes are formed, the purpose of instruction being simply, as is stated, for amusement. This matter is commended to the attention of the authorities.

THE ANTI-VACCINATION SOCIETY in Milwaukee has served papers in mandamus proceedings against the School Board for the purpose of testing the validity of the law prohibiting the admission of children to the public schools unless vaccinated.

HOTEL DOCTORS, according to the *Medical Record*, in New York sandbag with extortionate fees the guests of the hostelries and make a divy with the manager who collects the bills at the desk. Such things have also occurred nearer home *we fear*.

CAVIARE is said to destroy the cholera bacillus. Garlic is one of the latest sure cures advocated. Laparotomy, and washing out of the abdominal cavity has been tried by a Belgian surgeon in two cases of cholera with one hundred per cent mortality.

THE PROPORTION OF TUBERCULOUS MEAT, in nine German cities, varies from 10 to 26 per cent. In England the average is 12.22, that of the London supply being 15 per cent. Bulls and young cattle are almost free, the highest ratio being in cows.

IN MASSACHUSETTS, a bill has been reported by the Committee on Cities, providing that in cities of 30,000 inhabitants or over, all furnaces using bituminous coal for the production of steam, shall have some appliance for consuming an least seventy-five per cent of the smoke.

THE CHICAGO POLICLINIC will hold its fifth special course of lectures, commencing Wednesday, May 3d, and lasting two weeks. The recent additions to the hospital and the equipment of new laboratories and lecture rooms places this institution in the most satisfactory condition for carrying out its object.

THE Philadelphia Polyclinic, in its tenth annual report, shows that 9,585 cases were treated last year at the dispensary, and 650 in the wards; $30,315.94 passed through the treasurer's hands. Twenty-seven professors and sixty-eight assistants comprised the teaching staff, and 110 pupils were in attendance.

CUNEIHYSTERECTOMY is the euphonious name given by Thiriar to a new operation for the cure of anteflexion of the uterus. Dud-

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ley's operation for nathological anteflexion has been followed by such excellent results that abdominal section for the relief of this condition would seem unnecessary and dangerous.

DR. W. W. ALLPORT, D. D. S., died March 21st. He had long been identified with the best interests of the dental profession in Chicago and had a wide acquaintance in the medical profession of which one of his sons is a member. His death was due to meningitis following erysipelas. He was sixty-nine years of age.

THE CHICAGO JOURNAL OF HEALTH is the latest aspirant for popular favor. It claims to be devoted to sanitary science, hygiene, essential laws of health, etc., but judging from the contents of the initial issue it is chiefly devoted to the interests of a "sanitarium" which it advertizes in the regular daily paper, special style.

THE COMMENCEMENT EXERCISES of the medical departments of the University of Nashville, and of Vanderbilt University were held on March 2. Diplomas were distributed to the combined graduating classes, which numbered 126. After awarding prizes, President Maddin made the announcement that hereafter a three years' course is to be required.

COLLODION IN INCONTINENCE OF URINE is advocated by Dr. J. E. Powers. The prepuce is held with one hand, and the small cap-shaped depression at its extremity sealed with collodion. The patient soon learns to make the application for himself, and in a short time a cure is affected. The collodion can be easily removed with the finger nail when the patient desires to pass water.

INTERNESHIPS have been secured by competitive examination at St. Luke's Hospital by W. G. Stearns, F. G. Stubbs and S. J. Walker; at Michael Reese Hospital by J. R. E. Seavers; at Wesley Hospital by W. F. Seymour, and at Charity Hospital by R. A. McClure, all of Chicago Medical College. A. M. Werkmeister, of the same college, has received an appointment at St. Elizabeth's Hospital.

THE RUSH MEDICAL COLLEGE, OF CHICACO held its commencement exercises March 28th, graduating a class of one hundred and fifty-six students. The President, Dr. E. L. Holmes, delivered the doctorate address, and the valedictory was made by F. A. McGrew, M. D. In the evening a banquet was held at the Grand Pacific Hotel. At the Alumni meeting in the afternoon subscriptions were raised to purchase tablets for the class of 1855, 1856, and 1857, to be placed in the amphitheater.

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NEW YORK CITY during the month of March had a death rate of nearly 30 per 1000, computed annually, while that of Chicago was a trifle over 16. No doubt the returns of our Health Office will be declared false by the typhus and small-box infected Knickerbockers by the sea who drink the cesspool drainage of the Croton watershed with all its animated creation and find fault with the outside world except when some local public enterprise drives them as usual to take up a collection among people more fortunately situated.

THE INSANE IN GREAT BRITAIN have more that doubled in number in the last twenty-eight years. Mr. W. J. Corbett states that in 1862 there were 55,525 insane in the United Kingdom, in 1890 there were 117,336. He says it is "made evident, by the inexorable logic of figures, that so far from extended asylum accommodation, skillful treatment and improved appliances for the cure of the insane having a tendency to keep down or abate the ever-rising flood of insanity these very means and appliances appear to have the opposite effect.

CHOLERA, ITS PREVENTION AND TREATMENT was the subject discussed by a number of Chicago physicians on March 18th at the Great Northern Hotel, as the result of a call by the officers of the Practitioners' Club. The various phases of the question were discussed by Drs. J. B. Hamilton, John Rauch, H. M. Lyman, C. W. Earle, J. H. Hollister, Elmer Lee, E. Ingals and Ely McClellan. The different methods suggested for meeting the possible contagion were referred to a committee consisting of Drs. Earle, Hamilton, Lyman, Brown and Hollister, with authority to act for the profession.

THE PRACTITIONERS' CLUB OF CHICAGO held its fifteenth banquet at the Leland Hotel, March 27th, with Dr. E. J. Doering in the chair. The subject discussed was the profession in politics, introduced by Dr. John B. Hamilton and Dr. A. R. Reynolds. The opinion was generally expressed that it was the duty of the physician to interest himself in local politics and in politics in the best sense of the word, that there are many questions of public interest which only physicians can properly pass upon, and that unless the physician does so interest himself he has no right to complain of unwise legislation and bad municipal measures involving his own privileges, or the public health.

AN INTERNATIONAL SEMMELWEISS MEMORIAL is to be erected in his native city, Budapest, in recognition of his services to antisep-

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tic midwifery. The American members of the committee having the project in charge are: Dr. H. R. Bigelow and Dr. Barton Cooke Hirst, of Philadelphia; Dr. John S. Billings and Dr. A. F. A. King, of Washington, D. C.; Dr. E. W. Cushing, Dr. C. M. Green, Dr. Henry O. Marcy, Dr. L. W. Richardson, Dr. A. D. Sinclair, and Dr. W. Storer, of Boston, Mass.; Dr. W. W. Jaggard, of Chicago; Dr. J. H. Kellogg, of Battle Creek, Mich.; Dr. W. W. Potter, of Buffalo; and Dr. A. J. C. Skene, of Brooklyn. Subscriptions are to be forwarded to any of the American members of the committee.

AT THE ANNUAL MEETING OE THE CHICAGO MEDICAL SOCIETY held April 3d, Dr. Charles Warrington Earle was elected President for the current year, Dr. L. L. McArthur, and Dr. H. N. Moyer, Vice Presidents, Dr. J. C. Hoag succeeds himself as Secretary, Dr. Arthur R. Reynolds was elected Treasurer, and Dr. C. D. Wescott Necrologist. The retiring President, Dr. F. C. Hotz, was appointed a member of the judiciary committee, Dr. H. P. Newman on the membership committee, Dr. W. D. Graham on the library committee, and Dr. E. J. Doering on the publication committee. The appropriations for honoraria were passsd as proposed. The Treasurer's report showed a cash balance on hand of a little over a thousand dollars, and the society membership numbers six hundred and thirty-six.

THE "AMERICAN OPERATION" is advocated by orificial surgeons in Journals of their peculiarly comprehensive branch of surgery, for the relief or cure of acne, acne rosacea, amenorrhea, asthma, Bright's disease, constipation, chronic diarrhea, cramps, cessation of breathing during anesthesia, chronic urethritis, defective hearing, dysmenorrhea, dysentery, epilepsy, eczema, functional cardiac disease, hysteria, infantile marasmus, insanity, irritable bladder, lumbago, melancholia, muscular rheumatism, menorrhagia, morphine poisoning, neuralgia, neurasthenia, numbness, psoriasis, palpitation, poor capillary circulation, recent paralysis, seminal emissions, sciatica, sick headache, sleeplessness, some lung troubles, tuberculosis, tic doloreux and weak sight, and all this in the brief space of three months. How can we reconcile the perfectness of created man with the "orificial philosophy"?

This circular will be mailed to the physicians of Chicago in a few days:

DEAR DOCTOR:—The American Surgical Association at its last session adopted the following:

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Resolved: That the President be empowered to appoint a committee with authority to confer with the friends and admirers of the late Prof. Samuel D. Gross, and with the profession at large, for the initiation of a movement on the part of the Association, having for its object the erection of a monument to Dr. Gross in the City of Washington, D. C.

A committee of nineteen from said Association was appointed, with authority to confer with the profession at large and solicit subscriptions. It is not the purpose of the American Surgical Association to claim the honor of erecting this monument to the memory of one of its most distinguished fellows; but rather is its intention to initiate a movement in which the entire medical profession should feel an equal interest.

Each member of the committee above named was instructed to appoint subcommittees in his own State, irrespective of fellowship in this or any other association, which subcommittees will aid him in the collection of contributions to the general fund. Dr. John B. Roberts, 1627 Walnut Street, Philadelphia, is the Treasurer of the association, and will receipt for, and from time to time acknowledge subscriptions through the columns of the *Journal of the American Medical Association.* In the event of a failure to collect a sum sufficient to complete the monument, the contributions will all be returned to the subscribers.

Dr. Nicholas Senn, the member of the above named committee for Illinois, appointed by the direction of the General Committee, the following subcommittee for Chicago, namely: J. E. Owens, T. W. Miller, D. A. K. Steele and D. W. Graham to collect funds for the erection of the Gross Monument

The subcommittee takes pleasure in commending this enterprise to your favorable consideration, and solicits such a cash subscription as you may find it convenient to immediately pay to Mr. W. J. Stephenson, of Stephenson & Co., Physicians' Collector, our authorized solicitor and collector; or such an amount as you may enclose at your convenience during the next thirty days to Mr. W. J. Stephenson, Room 215, 85 Dearborn St., or to Dr. John E. Owens, 1806 Michigan Ave., or to any other member of the subcommittee. At the expiration of the thirty days our collector will again call for such subscriptions as remain unpaid. We have the honor to be

Very respectfully,

Sub-Committee { Signed, JOHN E. OWENS,
" T. W. MILLER,
" D. A. K. STEELE,
" D. W. GRAHAM.

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JOSEPH B. BACON, M. D., Rectal Surgery; Prof. of Rectal Surg. P.-G. Med. School; Rectal Surg. to the Charity Hosp.

FRANKLIN H. MARTIN, M. D., Diseases and Abdominal Surgery of Women; Prof. of Gynecology P.-G. Med. School; Gynecologist to Woman's Hospital.

W. FRANKLIN COLEMAN, M. D., M. R. C. S. Eng., Diseases of the Eye and Ear; Prof. of Ophthalmology P.-G. Med. School; Oculist and Aurist to St Elizabeth Hospital.

WILLOUGHBY WALLING, M. D., Diseases of the Nose and Throat.

D. A. K. STEELE, M. D., Surgery; Prof. of Princ. and Prac. of Surg. Coll. of Phys. and Surgs.; Prof of Surg. P.-G. Med. School.

S. T. YOUNT, M. D., Nervous Diseases; Prof. of Nervs. Dis. P.-G. Med. School.

A. SCHALEK, M. D., Skin and Genito-Urinary Diseases.

ROBT. DODDS, M. D., Obstetrics.

—FOR FURTHER INFORMATION ADDRESS—

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THE TREATMENT OF CONSUMPTION.

ROBERT H. BABCOCK, A. M., M. D.

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The very fact that an entire evening should be set aside for the discussion by this society of so hackneyed a subject, attests the truth of the proposition that, however much the discovery of the bacillus tuberculosis has done for the etiology and pathology of consumption, we do not yet possess a specific for its treatment. Many able and versatile minds are laboring to that end, and at any hour of the future, as in the past, the profession is likely to be stirred by some announcement which shall arouse fresh hopes as did Bergeon's enemata of sulphuretted hydrogen, Weigert's inhalations of superheated air or even Koch's tuberculin. At the present time Shurley-Gibbes method is being tried widely and with considerable success. But after all is said in favor of this, or of creasote, of guaiacol, or of any other one drug or special mode of treatment I venture the apparently audacious assertion, that statistics will not show a very much greater percentage of recoveries than is found post-mortem in individuals having died of other diseases.

It is an admitted fact that if treatment of pulmonary tuberculosis is to prove successful, it must be begun early. I do not

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assert that any cherished plan of treatment does not succeed in later stages of the disease; but the rule remains that the prospect of favorable results bears a direct ratio to the promptitude with which treatment follows the onset of the disease. That it is in this early stage that spontaneous arrest is most apt to occur, and that such a spontaneous cure does in fact not infrequently take place, is shown by post-morten observations. Bollinger, cited by Osler, discovered such evidences in 27 per cent, Massini in 39. Although Roger and Boudet, cited by Bennett, gave a still larger percentage of cicatrized tuberculous lesions, and others very much lower, the truth probably lies somewhere near the figures of Bollinger and Massini. Now of thirty-two cases published by Shurley in the *Therapeutic Gazette* of April and May, 1892, there were thirteen that apparently recovered, a percentage of a fraction over forty, while at Falkenstein, Germany, where cases of pulmonary consumption in all stages are treated on general hygienic and medicinal principles, at least 24.2 per cent of arrests is claimed. It is seen, therefore, that these results of professional management do not differ very materially from the figures of Bollinger and Massini. Hence my bold assertion made above that the results of any pet plan of treatment do not vary widely from those of nature unaided by the physician.

Do not conclude, however, that I deny the efficacy, or question the advisability of medical interference in cases of this formidable scourge. By no means! Many individuals are rescued by timely medical treatment who otherwise would perish. I only speak thus to show my lack of faith in any one mode of treatment for all cases.

Unquestionably much good can be done to those who can daily visit the physician's office, or daily command his services for subcutaneous injections of gold and iodine, or of sterilized solutions of creasote, for inhalations of compressed air charged with antiseptic and healing vapors; but there are many thousands more of poor sufferers who cannot avail themselves of such costly advantages, as well as thousands who would only spend their money in such ways to no purpose; and therefore it is for the consideration of the general management of such, that this paper is designed.

Certain fixed principles underlie the general medicinal and hygienic treatment of comsumptives, but in carrying out such principles, one should endeavor to avoid falling into a routine plan of management. Of these I believe the first to be, that treatment suited to the early or inflammatory stage, is not appropriate to the stage of softening and excavation. The two chief symptoms at

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this time as a rule are cough and pyrexia. The former should be allayed if possible, lest bronchial congestion and irritation be increased. To this end mild counterirritation is often very serviceable, preferably by means of small fly blisters below the clavicle of the affected side. I have often been surprised by the prompt relief thus afforded. Phosphate of codein in half grain or grain pills thrice daily is most efficient and praiseworthy because devoid of the deleterious properties and disagreeable after-affects of morphine or opium preparations. Bodily exercise should be gentle, all efforts calculated to greatly augment the flow of blood to the lungs must be avoided, since they are likely to intensify the already active inflammation. If the exercise, however mild, be found to increase the fever, it should be at once replaced by physical rest. It will be often observed that the measures addressed to relief of the harassing cough will also favorably influence the body temperature. Should such, however, not be the case, the dietary should be regulated in accordance with the rules governing that of any other form of continued fever, viz: liquid and moderately nitrogenous, food of which milk is the best. At the same time mild saline laxatives and gastro-intestinal antiseptics, as carefully purified dried ox gall and salophen, as well as dilute hydrochloric acid, may be administered to prevent as far as possible fermentation within the digestive tract for the intestinal irritation thus produced, as well as the products of fermentation undoubtedly play an accessory rule in maintaining the pyrexia. Should the temperature average high, nevertheless, antipyretic measures are in order, and of these I prefer careful spongings with warm water.

It is a mistake I think at this time to order cod liver oil and the like. It is not well borne as a rule, and serves but to disorder the digestion and disgust the patient. Neither likewise should iron be given, since it is quite sure to intensify the fever. Quinine may be administered in tonic doses, but if employed in antipyretic doses it is likely to derange the stomach and aggravate the cough. Salicylic acid is less objectionable, I think in the early stage. Strychnine and arsenious acid are in my opinion very useful tonics. and if the pulse be very rapid and feeble I advise whisky in moderate amounts.

In those cases in which symptoms are less pronounced, less stringent treatment is required. It is in these cases particularly I believe that creasote is indicated. Indeed it is for the treatment of incipient phthisis particularly that Somerbrodt recommends this remedy in as large doses as the patient can be made to toler-

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ate. Finally, it is for individuals in the early stage that I specially advise a change of climate. And here it should be said, it is just in these cases of beginning disease that a choice of climate is most difficult, since an unwise and hasty selection may prove more disastrous than a stay at home. This, however, is a part of our subject which the time at my disposal compels me to leave for another occasion. I will only remark that the more pronounced the constitutional disturbance, the less suitable is a high altitude, as a rule.

Cases characterized by continuous and high fever from the start present an unfavorable prognosis at the best and are but too apt to resist all efforts put forth in their behalf. A large percentage of them manifest early and pronounced digestive derangement both of secretion and absorption. This renders the problem of maintaining nutrition a most difficult one. If stomachics, such as a bitter alkaline mixture containing nux vomica, do not revive appetite, resort had better be had to lavage of the stomach. By this simple procedure I have seen more than one patient become able to consume and digest amounts of food which before was a physical impossibility.

In the stage of softening the management should be founded on other principles. Now unless the cough be so severe and paroxysmal as to cause vomiting and exhaustion, it should not be greatly interfered with. A dose of codein may be administered at bedtime to promote sleep, but in the morning and during the day the cough should be rather encouraged and the expectoration facilitated by means of hot drinks and appropriate inhalations, since the retention of the sputa serves but to increase the phenomena of sepsis due to absorption. Expectorants in the form of cough syrups are to be condemed, particularly if they contain preparations of opium. Besides obtunding the patient's sensibility to the presence in the bronchi of irritating products of caseation, they impair still further the already feeble appetite and digestion. I order instead a simple perforated zinc respirator, on the sponge of which are dropped ten to twenty drops of some sedative and antiseptic solution. The one I usually prescribe contains a drachm each of ethereal tincture of iodine, strong carbolic acid and oil of bitter almonds in enough spirits of chloroform to make up an ounce. Upon becoming accustomed to the respirator charged with such a solution the patient is generally able to wear it for an hour or more with decided ease and comfort. Should the cough be very urgent and intractible, the pharynx and larynx had better be care-

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fully inspected, as the source of the trouble is not infrequently found to reside in these parts. In such instances of course local treatment is necessary.

Other symptoms requiring attention are those due to sepsis, the so-called phenomena of hectic; these are chills, fever and sweating. Often the pyrexia, which subsides in a few hours, does not require special treatment, but in case it does call for some means for its mitigation, I first try the efficacy of plenty of fresh air, rest and liquid nourishment during the height of the pyrexia.

This failing, inhalations of oxygen combined with nitrogen monoxide in the proportion of 20 or even 40 per cent are ordered. These are sometimes followed by gratifying results. Should these also prove ineffectual, recourse is had to careful spongings or to small doses of phenacetine, etc. Of all measures at this stage, however, I am convinced that nothing excels plenty of fresh cool air. At Falkenstein consumptives are keep out on the open verandahs from 8 A. M. to 10 P. M. No matter what the weather, they are kept thus out of doors, sufficiently wrapped up in bed or easy chairs to maintain warmth of the body and protected from the rain or snow only by canvas curtains. In this way they are supplied with an abundance of pure air, and the results obtained by this, combined with proper alimentation, speak for themselves in a percentage of recoveries of from 24.2 to 27 per cent.

If my patients seek another climate at this time, I insist on prolonged daily sojourn in the open air; if they stay at home, fresh air is constantly admitted through an open window either in an adjoining room, or, if in the same department, so screened that the patient will not be exposed to direct draught. Nothing can be worse for the consumptive than the hot, ill-ventilated room in which he is so frequently confined. Is it any wonder he wastes away with fever and loathes food?

Of all remedies for sweating, I prefer picrotoxine in doses of a sixtieth or a fortieth of a grain. I have never observed ill effects, and it often proves effectual for two or three days. It should be taken an hour or two before the expected sweating. I long ago abandoned atropine for this purpose.

The great aim of our treatment should be to maintain and if possible improve the nutrition. That this is absolutely indispensable to retardation of, or recovery from this pulmonary disease has been abundantly proved by experimentation and clinical experience. But unfortunately our efforts are only too often frustrated by digestive derangements. Repugnance to food and indi-

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gestion are present in a large percentage of all cases. According to Ewald this condition obtains in 84 per cent of the severe cases analyzed by Brieger. Whereas "in moderately severe cases the gastric juice was normal in only 33 per cent. In the remainder its strength varied, the disturbance being as a rule, well marked; while in 6.6 per cent the normal secretory products were absolutely lacking. In the initial stages the cases of normal and disturbed secretion were about evenly divided." Not only is secretion disturbed, but absorption and peristalsis are also impaired. Moreover, a not inconsiderable proportion of consumptives manifest dyspeptic symptoms before those referable to the lungs call attention to the real seat of the mischief. It would appear furthermore, that the gastric derangement is due primarily to passive congestion, leading to chronic catarrh, although true dilatation of the stomach of phthisical patients has occasionally been observed. Recognizing, therefore, that the sufferer's inability to take food is not imaginary and due to whim, but depends upon chemical and mechanical disturbances which prevent the adequate digestion of nourishment when once taken, what are we to do? Manifestly we should manage these cases in the same way we would individuals without pulmonary complaints, but with chronic gastritis. That is, lavage should be instituted, gastro-intestinal antiseptics administered and a suitable regimen prescribed. For the repair of tissue waste going forward so rapidly large amounts of nitrogenous food are indicated. Yet just here we are met by the following difficulties. Owing to the diminution if not absence of free hydrochloric acid or to other coincident changes the stomach is not able to properly digest albuminoids and they tend to undergo putrefactive fermentation which condition is furthered, not checked by probable alterations in the pancreatic, intestinal and hepatic secretions. Moreover plenty of oxygen is required for the process of oxidation so necessary to the successful utilization of a chiefly nitrogenous diet. This, consumptive patients are not usually able to get, partly through physical weakness and partly because of diminished respiratory capacity. Hence we but too often witness an aggravation of the gastric and intestinal symptoms, such as the heavily coated tongue, nausea and diarrhea. Do not content yourselves with vague directions as to a hearty dietary, of plain easily digested food, but resort to those active measures and that practical medication already mentioned. Then, if after your most faithful efforts you cannot improve the difficulty, turn to liquid and peptonized foods which require little further elaboration but mainly absorp-

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tion and which by their concentration provide the greatest possible nourishment in the least possible bulk. Of these I find Mosquera's Beef Meal and Beef Meal Cacao, imported by Parke, Davis & Co. the best. Peptonized milk and meat juices are also valuable. If solid food can be tolerated at all, it will be during those hours when the body temperature is low, and not during the P. M. pyrexia.

Tonics, as strychnine and arsenic, are valuable, as well as the hypophosphites, malt extracts, etc. I do not prescribe iron, since I do not believe it is well borne and assimilated. When a patient can take codliver oil without impairment of the appetite and digestion thereby, I prescribe it in such doses as are absorbed and by preference of the pure oil with whisky, maltine etc. Many of the emulsions are said not to contain pure oil; but my patients report favorably of Morse's Cream, Matzol and Trommer's oil and malt emulsion. I do not approve of those substitutes that contain vegetable oils, since it is well established that animal oils are the most readily absorbed by the animal economy. Probably the best substitute for codliver oil is plenty of cream and good fresh butter.

If constipation or much intestinal fermentation exist, I relieve the former by copious warm water enemata and the latter by carefully purified dried ox gall combined usually with salophen or benzo-naphthol in capsules.

I have trespassed upon your patience and therefore will not attempt to enter any further into details of this plan of management which perhaps some of you are characterizing as "oldfashioned and worn out." I have no objection to the adoption of any other, the injection of dog's serum, or what not, if you prefer. But of one thing I am assured: if in addition your patients are managed on this general plan, their improvement will be the faster and without it some of them will assuredly disappoint you.

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THE TREATMENT OF PULMONARY TUBERCULOSIS.

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On an occasion of this kind, consideration of such a question as the therapeutics of pulmonary tuberculosis must necessarily be brief.

The great amount of experimentation and discussion devoted to this subject during the past two years, renders a thorough review of the subject at this time impossible.

The discovery of the tubercle bacillus as a specific element in the etiology of this disease, taken in connection with the inoculation experiments of Pasteur with the cholera germ; Charrin with the bacillus pyocyaneus; Roux and Yersin with the Loëffler bacillus of diphtheria; Brieger and Fraenkel's experiments with the same bacillus; Hankins and Sidney Martin with the toxines of anthrax cultures, seemed to furnish good ground for the enthusiasm which greeted Koch's announcement of his antidote to the tubercle bacillus. The practical failure of tuberculin so far, as a specific remedy for tuberculosis has confirmed the doubts of those whose actual clinical experience in the management of phthisis caused them to hesitate before accepting the claims made for this agent.

It is claimed by some that the reaction against tuberculin has gone too far, and Klebs, Hunter, Kinnicut, Beach, Dennison, Thorner and many others have reported results with tuberculin or some modification of it which are more or less favorable. Nevertheless it does not appear that their results are any better than can be obtained by other methods of treatment, and until such is the case, no special claim can be substantiated for this remedy. It is, however, yet too early to pass judgment in this matter.

The introduction into the system of substances which inhibit chemically the life of the specific bacillus of the disease, and antagonize the effect of the toxines resulting from the life activity of microörganisms, is theoretically an inviting method of therapeusis. The observations of Armand Ruffer relative to the action of lymphocytes and microphages, bring up the question as to what extent such chemical treatment may be carried without interfering with the natural therapeutic effect exhibited by the biological processes of these cells. Specific effects from agents of this class introduced into the system, must be obtained in one of these ways;

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by destruction of the bacillus, by antagonizing the evil effects of the bacillus, or by stimulating cell activity, and possibly by increasing the germicidal power of the bodily fluids to convey immunity against gross pathological changes in the lungs, or by such cell stimulation inducing connective tissue changes in the pulmonary tissue. In the light of the experiments of Roemer and Büchner, which open the question as to whether protein extractives derived from other sources than the tubercle bacillus, may not be able to produce irritation, inflammation, and necrosis; also the experiments of Prudden to the effect that an element of the protoplasm of dead bacilli possesses great cell stimulating power, the resulting lesions not having the active tendency to necrosis exhibited by the tuberculous lesions, together with the opinion of most observers that the practical failure of tuberculin is due to its tendency to produce tissue necrosis, we are still justified in hoping that further experiment will eliminate the peculiar destructive element from this agent, and will leave us a substance capable of producing definite therapeutic results. It seems most reasonable to expect these results through the induction of connective tissue changes through cell stimulation, at least in those instances where gross tissue changes have resulted from the action of the bacilli.

Klebs insists on the fact that tuberculocidin does not induce any inflammatory or necrotic process, and acts only through its germicidal qualities.

When any considerable tissue change has taken place in the lung, the term cure can only be used in a relative sense, the lung can never return to its former condition, and the respite from further destruction depends on the extent to which nature will limit the process by connective tissue organization. These cirrhotic processes in tuberculous lungs, must be regarded as nature's efforts to limit the disease.

Councilman's view, that because bacilli are found in the inflammatory tissue surrounding tuberculous masses, this tissue must therefore be part of the tuberculous process, does not seem to be well taken.

There is less tendency to necrosis in tubercular nodules where fibroid development has been marked, providing the blood supply has not been cut off, as shown by the better vitality in these nodules where Cornil and Ranvier were able to demonstrate blood vessels.

The fact that lungs which have undergone fibroid development from other than tuberculous causes, are especially liable, in some instances, to secondary tubercular infection, does not militate

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against this view of the protective nature of these indurative processes. Cardiac hypertrophy is nature's remedy for insufficient force, and yet this very hypertrophy entails of itself in time, insufficient nutrition and degeneration; so in the lungs sclerotic processes compromise the circulation, nutrition, oxidation and elimination, consequently the resistance of a lung under such conditions must always be such as to invite the invasion of the tubercle bacillus.

The impossibility of the limitation of tuberculous processes without the development of connective tissue changes, directs our therapeutics in the line of combating the tendency to necrosis in such processes until such changes can be developed, and all methods of treatment are found directly beneficial in so far as they favor such development. In consideration of the general acceptance of the tubercle bacillus as the specific cause of tuberculosis, also that the majority of medical men at present agree with Koch and Virchow, that it is not the disease which is inherited, but a condition of vulnerability of the tissues, preventative medicine becomes of the greatest importance.

It is surprising what an apathetic state exists not only among the general public, but among medical men also, in regard to this feature of the subject. On the part of the public it is the result of ignorance largely, though the average citizen considers it as a violent infringement on his personal rights, any attempt to regulate his great American prerogative of expectorating when and where he chooses.

If the course adopted by the anti-tuberculous league of France, or some modification of it as suggested by the editor of the *Universal Medical Journal*, be adopted in this country, and the excellent set of rules and instructions adopted by this society be made public property, much good might result therefrom.

If the claims of Grancher and Martin should prove true, i. e., that it is possible by inoculation to establish a prolonged resistance to fatal forms of tuberculosis, and also to produce an immunity from infection, of greater or less duration, it might be possible to attain some definite results in this department of medicine.

Next in order I would place the climatic treatment of tuberculosis. The results obtained by the use of remedies alone, in a climate like this, cannot compare with the results obtained by the judicious use of climatic and medicinal means combined. The many difficulties in the way of the practical application of climatic treatment need not be dwelt upon. As far as the medical adviser is concerned, it appears the chief fault lies in a want of proper

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knowledge of the geographical and meteorological conditions of various localities, and the specific requirements of the individual case. In regard to the former, it is to be hoped that the work of the American Climatological Association may result in more general and definite knowledge. In regard to the latter, and the special adaptation of certain localities, the contributions to the literature of this part of the subject by resident practitioners, while recognizing the special features of their particular locality, adapting it to the treatment of special forms of the disease, the general features of the region are so enlarged upon that the locality in question would seem to be the Mecca of all tubercular pilgrims.

The general features of climate which are beneficial are equable temperature, dryness, elevation, and in some instances warmth.

In some localities an ozonized atmosphere is credited with the good effects. The recent observations of Ohlmüller, of Berlin, go to prove that ozone has a powerful destructive action on various bacilli, in an inverse ratio to the amount of organic matter present, and the dryness of the bacteria and ozone.

Schoenheim's opinion, that ozone in the atmosphere is a powerful disinfecting agent, is supported by the observations of Wolffhügel and Fox. Dr. Henry S. Norris reported in the *New York Medical Journal* for November 5, '92, a series of cases treated by the administration of ozone with beneficial results. It is probable that the good effects of climate in some localities in the lower altitudes is due largely to ozone. The general effect of climatic treatment is to stimulate oxygination, oxidization and elimination, and the stimulant effects of ozone on these functions cannot but be beneficial.

The writings of Williams, Copeland, Taylor, Burney Yeo, Huggard, Fisk, Anderson, and others give a fairly unanimous view of the effect of climate, and the class of cases likely to be benefited. The chief discrepancy one finds in the papers on this subject is the varying opinions regarding altitude in hemorrhagic cases. There is no doubt that with proper sanitaria with modern hospital regulations, located in the various health regions, and with the cases properly selected according to the nature of the location, that much better results should be obtained than by the haphazard way of allowing patients to go to these regions and take care of themselves.

Nicaise, Herman Weber, Leyden, Detweiler, Kretzschmar and others advocate the hospital treatment of tuberculosis in special institutions. The promiscuous association of cases which are in an

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infectious condition, and those which are not. at health resorts, is to be discountenanced.

The tendency of the present is to avoid warm climates, especially those of moderate moisture. Williams has shown that some cases of catarrhal nature do best in such a climate.

In indicating the altitude for a given case the following factors must be kept in mind: Age of patient, stage of disease, rapidity of development, presence of pyrexia, amount of tissue involved, condition of general bodily functions, condition of heart and circulation, cause of infection if it can be determined.

The available lung space, the absence of emphysema, and the condition of the heart are important factors in estimating the effect of a dry rarified atmosphere.

Cases showing rapid development,considerable involvement of tissue, pyrexia; cavities showing tendency to rapid necrosis of lung tissue, absence of connective tissue development, tendency to hemorrhage after disease has existed six months, emphysema, bronchiectasis, dyspnea and cardiac weakness are unsuitable for an elevation of over 1,500 feet.

Cases of fibroid phthisis with much shrinking of the lung are not suited for high altitudes, even though pyrexia be absent, as these cases eventually suffer from cardiac degeneration and failure. Eight per cent of markedly tuberculous patients discharged from Brehmer's institute at Goerbersdorf remained relatively cured after fifteen years.

The only remedy which has held its own in the medicinal treatment of tuberculosis, is creasote; this medicament after falling into disuse for a number of years, again revived, chiefly owing to the abiding faith and advocacy of Summerbrodt of Breslau, who asserts its specific influence by resisting the development of bacilli. Guttman concludes that if the blood could be made to contain one four-thousanth part of its quantity of creasote, bacilli would cease to develop. He calculates that this would require over twenty grains, which he thinks impossible because we cannot determine the necessary quantity for administration. Summerbrodt, however, believes it possible to administer the necessary quantity. Wm. H. Flint claims the best results are obtained by pushing the remedy to the point of toleration by mouth, rectum and by inhalation.

Torstensson exhibits three to four grammes daily of the drug, by intramuscular injection of guaiacol in sterilized olive oil, and by rectal injection of creasote.

Cornet, from experiments concludes that the favorable effect

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of creasote results from its improving the appetite and diminishing bronchial secretions. This view is also taken by some clinicians. Recent experiments go to prove that creasote in the blood combines with certain albuminoids forming combinations which are without any particular germicidal influence. Experiments on animals have not borne out the theory of Bouchard and others, that creasote induced connective tissue growth. Personally, I entirely agree with the opinion that any such influence is exerted only through its ability to stimulate nutrition. I have never been able to convince myself that directly it affected the process in the lung in any way. My own experience with creasote has been indifferent. The appetite generally improves, and some weight may be gained, with general improvement in all the symptoms, but it does not appear to me to have any effect on the tubercular process in the lung. I have used it generally in capsule or in emulsion with hydroleine. The substitution of guaiacol or some of the other substitutes for creasote, is much pleasanter for the patient and appears to be about as efficacious.

It is possible that in this country we have been administering too little creasote to obtain as good results as are claimed by continental observers, but the gluteal injection of from six to eight grammes of a mixture in the morning, and the rectal injection of a pint or more at night, is a form of treatment hardly adapted to the disposition of the average American, especially when this must be continued for two years or more.

The use of intratracheal injections and inhalations while they may relieve some symptoms as curative means, will probably, in time, be placed in the same category of failures as the more unscientific hot and cold air treatments of Worms and Krull.

The cantharidin treatment of Liebreich has not been largely accepted; theoretically it is a reasonable method, and experiments have not been altogether without results. It seems very doubtful, however, if practical results can be obtained by this method, though when we consider the practical immunity from infection, afforded by the greater amount of serum in the lungs from insufficiency of the mitral valves, the theory of Liebreich does not seem visionary, taken in connection with the experimental proof already afforded of the germicidal properties of the bodily fluids.

The treatment by dogs' serum, and the local injection of chloride of zinc, have so far failed of any practical results, and need not be specially commented upon.

The Gibb's-Shurley treatment has died a natural death, if in-

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deed, it was ever born, the practical inutility of this method of treatment impressed itself early upon me, and experimentation with it has only served to confirm my first impression. In my own practice aboth public and private, I have for a number of years past treated a number of cases with hypophosphites, in the form of a syrup of whichever salt was indicated; I prefer Gardners syrup as being the most stable on the market. This must not be confounded with the combined hypophosphites. The latter preparation I used for several years in a large number of cases and became firmly convinced of the truth of Churchill's teaching, that the compound syrup of hypophosphites is distinctly injurious to phthisical patients.

The hypophosphite of soda is generally the most useful, and is given in apyretic cases where there is not much expectoration.

The quinia salt is used temporarily when the temperature is over 100° F. and the lime salt where there is too free expectoration, six or seven grains daily being the maximum dose. I believe I have had fully as good results from this method, as by any other, if not better.

In advanced cases I have found no mixture so efficient in quieting the cough and loosening the sticky mucus, as one-eighth of a grain of morphine with ten drops of dilute hydrobromic acid given in syrup of tolu. For troublesome night sweats, atropine and camphoric acid are the most useful. The latter is free from the disagreeable effects of the former, and may be given in capsules of five grains each, three of these at six in the evening and three at nine, and increased if necessary; the effect may last for two or three nights.

In closing I wish to deplore the fact that there is in this city, so bountifully supplied with charitable institutions for the supply of medical and surgical relief to the needy, not one devoted to the care of the most fatal malady of our time. With the general recognition of the infectiousness of tuberculosis, hospitals which have always admitted such cases are becoming very reluctant to do so, and the indigent sufferer from tuberculosis literally has not where to lay his head. A special instition for the treatment of such cases is a crying necessity, and it is to be hoped that Chicago will not much longer remain behind other large cities in this respect.

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VOLUNTARY RESPIRATORY EXERCISE IN THE TREATMENT OF PHTHISIS.

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Dr. Babcock has called attention to the fact that the most successful treatment is that which is begun early. Every one admits this, but there is even a greater difficulty than beginning treatment early. It is the continuance of it. Tuberculous patients should be instructed that their disease is preëminently a chronic one, that it does not run a short course or cannot be recovered from in a short time. If recovery takes place it is only after many months, and usually after many years of good care. There are some diseases, preëminently, perhaps syphilis, which the laity generally understand require time for treatment, and when the physician tells them in the beginning that they must be under treament for many months they submit without difficulty; but this is not true in regard to tuberculosis. Many recoveries are not made when they might be, because of the frequent discontinuance of treatment. Patients are especially apt to stop treatment in the periods of quiesence. It is in these times of quiesence that most can be hoped for effecting genuine recovery. During the periods of exacerbation of the disease medicinal treatment and the direct care of the physician is necessary, just as it would be necessary in any acute or subacute disease. During these periods of quiesence we can accomplish the most toward bringing about recovery by correcting the habits of patients. It is not at this time that medication is required; often at this time the less medicine given the better, but patients should be taught to live so as to correct deformities of the chest and insure healing of the lungs. In the stage of incipiency and during the periods of quiesence, the most can be accomplished by changes of climate, while during the active exacerbations of inflammations in the lungs, comparatively little relief is obtained by such changes.

Unfortunately there are a large class of patients who cannot take advantage of changes of climate and it is with reference to one of the means of treating this class that I wish to speak. For one of the most important benefits derived from a change of climate we have no substitute. It is the mental buoyancy

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which the faith patients themselves have in the change produces. It has become a popular belief that consumption is more surely cured by change of climate than by anything else, therefore although when patients make a change they recognize the fact that it must be a prolonged one. They have a degree of buoyancy and hope which comes from the expectation of recovery, that aids materially in again establishing good general nutrition. Change of climate also removes patients from the frequent temperature changes, the cold and damp of our climate. For these advantages we can substitute nothing. In the chronic cases in which the lesions develop slowly, in which the lungs are often very much contracted, the best results are obtained by a change a high altitude. In these cases beneficial results come largely from the mechanical changes produced within the lungs, by breathing rarified air.

At home we can obtain the same effects to some extent by the use of mechanical appliances, such as the pneumatic cabinet. It can however be utilized by comparatively few. The same results can be obtained more gradually, but ultimately as perfectly by voluntary respiratory exercises persisted in for a very long period of time. By voluntary respiratory exercises I mean the drawing frequently but slowly the deepest possible inspiration. In order to obtain the good effects which such respiratory exercise can produce it must be repeated frequently, and the best effects are had if it is taken in the open air. In my own practice I usually urge patients, for whom such exercise is applicable, to fill the chest to its utmost while out of doors once in so many minutes, or if they are walking, at the end of each half block. By filling the lungs as completely, but as slowly as possible, all the respiratory muscles are brought into action. In phthisical patients the strength of the respiratory movements are at first so slight that the results are almost inappreciable but by degrees they become marked. The first good obtained by persistent respiratory exercise is the strengthening of the chest muscles. All have observed in consumptives a diminished capacity for drawing deep breaths. Commonly when their chests are measured the difference between complete expiration and complete inspiration is not over an inch and a half, or two inches at most; sometimes it is much less. The chest is usually sunken, the muscles thin, atrophied and weak. The difficulty of inflating the lungs is due in part to the muscular atrophy which hurried, shallow respirations have helped to produce, but to a greater extent to infiltration of the lung tissue not only with solid

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cellular exudates, but with serous exudates which makes much of the lung tissue incapable of the degree of expansion and elasticity it should have. The elasticity of the lungs is temporarily diminished by these exudates, and may be permanently by genuine consolidation.

Besides strengthening the respiratory muscles breathing exercise, it also strengthens the muscles of the shoulders and back. This will often straighten the shoulders when stooped and the back when bowed. Deep and full respiration also helps very much to empty the bronchial tubes of the mucous which they contain. It does not do this to the extent that the pneumatic cabinet will, but the contents of the bronchial tubes is dislodged more forcefully and emptied more perfectly than would happen if deep inspiration were not made. In the beginning of treatment deep respirations frequently provoke coughing, but this is not a contraindication for their practice. It frees the bronchial tubes and after the coughing spell is over it will not be soon repeated.

Gradually, the respiratory movements become more forcible and a larger quantity of air is habitually emptied from the lungs and drawn into them. This will aid in preventing the spread of infectious matter through the lungs. Many new lesions which form here and there in the lungs, are produced by the bacilli which are carried from one part of the lung to another by air expired from one bronchus and inspired into another. If respiration is shallow the tidal air will fill the large bronchi only. During expiration the air within the lung tissue and smaller bronchi will be drawn only into those of medium size and with the next inspiration swept back into the lungs again, probably by another bronchiole and may carry with it mucus laden with bacilli. If, however, the respiratory movements are habitually more forceful, secretion will more generally find their way into the large bronchi or trachea and they will remain too short a time in the lungs for bacilli to get permanently lodged in them.

Deep inspirations of this kind tend to correct deformities which the disease may have produced. They will cause a decided increase in the size of the chest and as a matter of course by increasing the size of the thorax may overcome contractions of it. This is accomplished by producing first a compensative emphysema here and there in the lungs and ultimately around the patches of consolidation, where the alveoli about these patches become distended by the emphysema their walls are thin and there can be little congestion or inflammation in them. Therefore

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the spread of inflammation from the tuberculus foci may be limited.

Good effects are produced by such exercises in other ways. They help to cause a reabsortion of exudates, particularly of serous exudates, but somewhat also of catarrhal exudates. This is due to the improved lymph circulation which is established; better lymph circulation is produced because when a deep inspiration is made and the air held for a moment, the lung tissue is compressed against the thoracic wall. Whatever may then be in the lung tissue is squeezed from it to some extent. During expiration the lung tissue is not under pressure and fills with blood or with lymph which is again pressed out by a deep, full inspiration, just as by the hand we can squeeze water from a sponge. A better circulation in the veins and arteries is also promoted and therefore a better nutrition of the lungs maintained. Through inflamed tissues the blood move slowly on account of a persistent engorgment of them and even in the tissue immediately surrounding the inflamed ones there is engorgement and changes which border upon inflammation and which may develop into active inflammation. If when there are such areas of chronic inflammation in the lungs the blood vessels in the alveolar walls are placed under pressure by the air during deep inspiration the blood will be pressed out of the capillaries and arteries and helped onto the left side of the heart. The extra labor which the right heart has been doing in pumping the blood through the congested vessels will be much relieved, for the arteries fill more perfectly and the veins empty more perfectly because of these exercises. To besure all these effects are obtained best in those who are in the stage of incipiency or when the disease is in a quiescent state.

Just in proportion as the circulation through the lungs is maintained better will general nutrition be improved, for when more blood is carried to the lungs for oxydation and is better oxygenated it will when carried throughout the body maintain more perfect metabolic changes in all tissues.

These changes constitute the mode of action of voluntary respiratory exercise in phthisis.

A word in regard to the indications and countraindications for using this mode of treatment. It is more particularly indicated in the stage of incipiency and where the disease is quiescente most can be accomplished, also in the earlier years of life, in early manhood and youth. It is an almost useless mode of treatment when patients are very greatly weakened either in the beginning of the dis-

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ease or any stage in the progress. It is contraindicated too, when there is much pyrexia, particulary if the fever is high or persistant. If attempted when there is fever these exercises persistently carried out will weary the patient and usually increase the temperature.

These exercises are contraindicated when there are large cavities in the lungs, and immediately after hemorrhage from the lungs because forcible and deeper respiration may dislodge a clot and provoke additional hemorrhage. These exercises will accomplish little good unless tried in suitable cases and persisted in. To illustrate the effects of such exercises, I will briefly describe the changes in two cases. By searching my records more carefully, more striking examples might have have been found. The first patient, a young man of twenty-seven, came to me last September. The whole of the upper lobe of the right side was decidedly dull.

The respiratory sounds were low, feeble and nonvesicular and lacking in force. At the left apex there was very little dullness, and the respiratory sounds were moderately exaggerated. The patient was five feet ten inches in height, his girth at the time of the first examination was thirty-one inches when a full inspiration was made, thirty-two and one-half inches, when a complete expiration was made, his weight was 118 pounds. He coughed frequently and severely. The cough produced sometimes vomiting. He had expectorated blood a few times in small quantities. There were occaional nights weats, pulse ninety, moderately full and temperature ninety-nine. In November the expansion was two and one-half inches, his cough was less frequent, expectoration less in amount, pulse eighty-four and strong, appetite good, do night sweats and temperature for the most part normal. In December expansion was the same. Toward the end of January he had gained several pounds in flesh. At this time he had some pain in the chest of a fleeting character, undoubtedly, however, pleuritic in nature. His breathing was habitually much deeper than it had been; the respiratory sounds stronger. They were no longer low and nonvesicular in the right apex but more forceful, almost exaggerated in character. In February he appeared very much the same. On the 18th of March he weighed 125 pounds, his pulse was seventy-eight, girth from thirty-one and one-half, when he had expired completely, to thirty-five when he filled his chest completely, an expansion of three and one-half inches instead of one and one-half as it was when he came to me in September. This patient was one of

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few who persisted faithfully in the practice of respiratory exercises. The disease was in the stage of incipiency where we can expect the best results from this mode of treatment. In proportion as the respiratory capacity increased, the pulse rate fell, temperature became persistently normal, cough and expectoration lessened. In a word all symptoms improved. In tuberculosis of the lungs the pulse is out of proportion to the temperature; even if the latter is ninety-eight and one-half, or almost normal, the pulse is usually ninety or 100, soft and small. When the respiratory capacity is increased the circulation through the lungs is made better, the heart's beat grows stronger, and then the larger circulation and general nutrition are improved.

The second case is that of a bookbinder about 24 years of age. When first seen by me in February, 1892, there was consolidation of the apex of both lungs. Pleuritic pains were frequent. He had had several hemorrhages. He was sweating almost every night. His height was 6 feet 8 inches, his girth on complete expiration 29½, on complete inspiration 31, his temperature 101, his pulse 100. In March he was coughing less. The chest measurements were practically the same. In April the sweating had ceased or occurred very rarely, expectoration was considerably lessened, his strength increased, and there was a moderate increase in weight. Pulse 90, temperature normal, girth 29¾ when the chest was completely emptied, the increase being due to increased flesh; on complete inspiration the girth was 31¾, a slight gain in the capacity. By May he had gained several pounds of flesh, coughing was much less frequent, and in every way he was feeling better. In July, on complete expiration his girth was 29¾, and on as full inspiration 32½, pulse normal. In September his girth was 29¾ on complete expiration, 33½ on complete inspiration, the difference being 3¾ inches. This patient was warned not to go back to his indoor sedentary work. During this period of improvement he had lived an active outdoor life, doing no work but taking the best care of himself. However, in the latter part of the summer, feeling so well, he began to work at his trade, bookbinding. He continued to do comparatively well until cold weather set in. The windows of the bindery were then closed, the room often overheated. He began to cough more, pain returned in the chest, his respiratory capacity was slightly diminished, and the temperature increased a little. In November I found his temperature 100½, his pulse 90; on complete expiration girth 29¾, on inspiration 32½, a slight diminution over that of four or five months earlier when he was at his best.

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He has since been improving, but only on resuming his outdoor life.

I have called attention to this mode of treatment not because it is novel but because I do not believe it is often enough practiced or that patients are sufficiently instructed in the matter. It is surprising how few patients know how to perform the respiratory exercises. Many of them must be taught how to make a full inspiration, particularly is this true of phthisical patients. Occasionally I find a patient who has been interested in athletics and has learned how to breathe well. Such patients almost invariably begin on the respiratory exercises and carry them on faithfully, because they have already learned the good effects of such exercises.

65 RANDOLPH STREET.

THE TREATMENT OF PULMONARY TUBERCULOSIS.

BY JOHN A. ROBISON, A. M., M. D.

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In 1891 there were 2,120 deaths in Chicago from phthisis pulmonalis, or 7.56 per cent of the mortality in this great city. The ward in which the highest mortality occurred was the nineteenth, and the reason for this can readily be discerned when we learn that this ward stands forth in the number of its residents and that many lots contain two or three houses that are packed full of human beings, and that the alleys are unpaved, full of manure, filth and garbage, the accumulation of years, and in the summer when the windows are open the stench is almost intolerable and the poor people who are thus crowded together do not have the advantage of pure air and cleanliness. The people are cosmopolitan and are not particular as to how they deposit offal. This illustrates forcibly that crowding people together in unsanitary quarters is a prolific cause of tubercular disease.

My idea is that the therapeusis in each case must be planned according to the patient, his social relations, his environments, his wealth, and the judgment of his physician. But there are special lines of conduct that we may systematically study and which have been successfully tried, and which I present for consideration, as follows:

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1. The hygienic treatment; 2. The climatic treatmnet; 3. The medicical treatment. The dietetic treatment.

HYGIENIC TREATMENT.—Two objects are to be gained in the hygienic management of patients predisposed to or affected by tuberculosis: First, its prevention. Second, its cure. And foremost among the means to prevent consumption is the popular dissemination of knowledge among the laity as to the cause and conditions that promote its development. While it is probable that the disease is sometimes directly transmitted by heredity, this has not yet been unequivocally proven. Therefore, we may argue that when a man and woman marry, both of whom are in delicate health, their offspring will offer the least resistance to the ravages of the bacilli tuberculosis that may find entrance to the body by the inspired air or contaminated food. But it is a matter of clinical observation that if one branch of a family is of a robust constitution, free from any hereditary vice, the succeeding generations may be free from any tubercular disease.

But granted that there is present in any family a trace of tubercular disease, then the hygienic treatment for the prevention of phthisis pulmonalis should commence in infancy. The food should be such as is most easily digestible and nourishing; the child should be taught to eat freely and relish fatty and leguminous foods; and as it grows older it should be properly and warmly clothed, should live almost continuously in the open air and be allowed to enjoy outdoor sports. Its school hours should be short, and the intellectual education should be subordinate to the physical. Girls especially should not be allowed to become young ladies before their time; should not be permitted to wear corsets, eat late suppers, go to balls, or ape their fashionable mammas. Such exercises as playing ball, lawn-tennis, archery, swimming, boating, horseback and bicycle riding, etc., may properly be indulged in by girls as well as boys. Again, a residence in the country is to be preferred to one in the city. As the age of majority approaches, the selection of the life vocation should receive serious consideration; the occupation should not be too confining, nor in close unhygienic quarters, nor tax too severely either the body or mind.

In case phthisis pulmonalis already exists, then the question arises: What means must we employ to arrest the progress of the disease? In my experience in the treatment of consumptives, I would tabulate the following hygienic means:

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Respiration exercises, or deep breathing; breathing pure air, especially mountain air.

Gymnastic exercises.

Sufficient rest and sleep.

Daily baths.

Dressing properly.

In case of deep breathing we may employ two methods: 1. Breathing exercises without mechanical aids; 2. These exercises with mechanical aids to expand the chest.

The first consists in the patient lying flat upon the back, without the head elevated, and inspiring through the nose; it should be the aim to put into action the abdominal muscles and the diaphragm. Let the lungs be gently but fully filled with air, retaining it for a moment and then expiring forciby. As the patient becomes more expert, let him increase the frequency of the deep respirations until he takes *ten* to *twelve* per minute. These exercises should be indulged in twice or thrice daily, and the patients can lengthen the time of exercising until they occupy an hour each time. My experience in the treatment of phthisis by the inhalation of superheated air, led me to believe that the beneficial effects sometimes derived were solely from the forced respiration thus inculcated.

The second method of deepened inspiration is by the coöperation of weights and pulleys; by this method it is possible to considerably expand the chest and increase the breathing capacity of the patient.

These exercises should be taken under the supervision of a teacher who can develop any groups of muscles that may need it. I am in favor of young men and women practicing in gymnasiums under the guidance of competent instructors. In case athletic teachers cannot be procured I furnish my patients printed instructions how to develop the respiratory muscles and increase the lung capacity.

A great number of variations of these exercises may be instituted according to circumstances. Care must be taken, however, to begin gradually, so as to avoid fatigue or soreness of the muscles, in feeble patients.

These exercises are especially valuable in the treatment of cases of incipient phthisis. Many times there are evidences of slight deposits in the apices, and the patients are those who through carelessness, ignorance or habit, do not fully inflate the lungs; hence the air seldom enters the apices, and the lung tissue

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does not receive its full quota of air—it soon loses its elasticity, the arterial, and venous circulations become sluggish, and the tubercular deposit is left the sole occupant of the field and soon conquers it. By encouraging the patient to fully expand the lungs, fill the unused air vesicles with pure air, and thoroughly aerate the blood that passes through the neglected area, we do a great deal toward placing the tissues in a condition so that they can successfully resist the onset of the bacilli tuberculosis.

Pneumatic differentiation in combination with these lung gymnastic exercises is often of great value.

THE CLIMATIC TREATMENT.—It is not my purpose at this time to say the one-hundreth part of what might be said on this subject. I believe the choice of a climate is sometimes a matter of minor value, whereas physcians often consider it of prime importance, and alas! how many hundreds of patients have been hurried to their death by being wrongly advised to go some place to receive the benefits of a climate, to the sacrifice of good living, home comforts, good nursing and cheerful companionship. No climate is a specific. In locating a consumptive patient, one should endeavor to secure the following advantages:

1. The climate should be such as to insure pure air free from dust or poisonous germs. Such air is more apt to be found at an elevation of over 1,000 feet above the sea level, or in mid-ocean.

2. There should be an equable temperature, neither too warm nor too cold; the air should be in continuous motion, and yet there should be few wind storms.

3. There should be plenty of sunshine, and the scenery should be pleasant.

4. The patient should be able to take almost daily outdoor exercise, or be able to lie outdoors if too feeble to exercise.

5. The health resort should be easily accessible, and home comforts with congenial society easily obtainable.

6. The practice of sending patients away indiscriminately is deplorable; each case should be carefully studied, and the resort chosen according to individual temperament, stage of the disease, wealth and social habits of the patient.

THE MEDICINAL TREATMENT OF PHTHISIS.—Over-medication is one of the evils to be avoided. It is a matter for wonderment that so many patients survive the wholesale administration of tonics, cough mixtures, antiseptics, villianous compounds of oil, etc. Too often the medicinal treatment of phthisis is mere routine. My plea is for less, but more scientific, medication. Let us

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differentiate the cases and apply our remedies with definite objects in view.

The fewer drugs we use the better our patients will be, as a rule. I have tried the whole list of remedies that are recommended and I have come to the conclusion after thirteen years of a large clinical experience that the medicinal treatment of the phthisis pulmonalis is a failure. My experience is that creasote, or guaiacol, gives the best results in the greatest number of cases of general tuberculosis. Creasote is astringent, sedative and antiseptic, and these therapeutic actions probably account for the beneficial results that sometimes follow its administration in phthisis pulmonalis.

I give it internally in the form of Parke, Davis & Co's. enteric creasote pills; or guaiacol in liquid form, the point of saturation, or until it produces digestive disturbance. If patient cannot take creasote per orem, I give fifteen to thirty drops per rectum. I have devised a small evaporating apparatus so that two to four drachms of creasote can be evaporated in the patient's bed chamber during the night, and he will breathe an atmosphere impregnated with creasote. In the morning the room is well aired. In case there is constipation, I have given the creasote in elastic castor oil capsules.

Of course the complications of pulmonary consumption are treated as they arise, according to the physician's judgment as to what medical agents are indicated.

I have employed lavage in a few cases when it was indicated, with good results. And I have used colonic flushings with antiseptic solutions in a few cases of persistent diarrhea, with benefit. But in the majority of cases diarrhea, excessive perspiration, nausea, vomiting, fever, et cetera, are successfully combatted by a change in diet, by massage, sponging, the application of heat or cold, and so forth. The medicinal treatment I consider as the least essential of all.

THE DIETETIC MANAGEMENT OF PHTHISIS.—The manager of the cuisine holds the key to success in benefiting consumptives. The proper kind of diet and the way to serve it, are questions of prime importance. The preventive treatment of consumption begins generations back; oftentimes consumptives are suffering for the dietetic sins of their ancestors; therefore, as physicians we should instruct the families under our care to give to infants and children such food as will make healthy tissue. Fothergill pleasantly writes of the food that the children of phthisical parents should

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take—milk, crackers, oil, butter and sugar, and fatty food in general. As a prophylactic of phthisis, there is no doubt of the value of the proper diet in early life. In the dietetic management of consumptive patients there are several facts that must be considered.

1. The food should be nicely prepared and daintily served—in other words made attractive as well as palatable.

2. The stomach and intestinal canal must be in the best possible condition for the digestion and absorption of food. In case of catarrhal disease of the stomach or intestines, the systematic drinking of hot water, half to one pint an hour before meals, or washing out the stomach, will often prove beneficial.

3. The food must be varied, and to suit each individual case. The foods that are most useful are, in order of their relative value: Animal foods of the nitrogenous variety, especially beef, milk, eggs, mutton, poultry, fish, green vegetables; the farinaceous and starchy foods are of secondary importance. Butter should be used freely; cream with alcohol is often of great service.

4. Food must be taken frequently—at least six times daily, and at intervals of three or four hours.

Food should never be taken when suffering from bodily fatigue, mental worry, or nervous excitement. Before the full meals rest in a recumbent position from twenty to thirty minutes, even if not sleeping.

As far as possible, each meal should consist of such articles as require about the same length of time for digestion; for example, first the starches, such as bread, potatoes, oatmeal, etc., with sugar; then albuminous food, such as meat, fish, butter, etc.

DAILY PROGRAMME.

Strict discipline is necessary in the control of our patients. The following daily programme has been found to be conducive to improving general nutrition:

7 A. M.—An attendent thoroughly massages or rubs the patient with alcohol. Every portion of the body is massaged, and this operation occupies about twenty minutes. The body is first rubbed down with dry towels, then with alcohol, and occasionally with salt water. In many cases, for hardening purposes, the cold douche is given. It is applied sideways, first as a gentle shower, then as a stream, generally occupying fifteen seconds, never over fifty. The douche should be applied only by the physician.

7:30 A. M.—Patient arises and partakes of his first breakfast,

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which consists of coffee or chocolate, honey, eggs, toast and milk.

8. A. M.—The patient, if able, takes a walk in the open air, or goes through some of the gymnastic exercises already indicated. Neither form of exercise must be fatiguing.

10 A. M. Second Breakfast.—Oatmeal or cracked wheat porridge, with little sugar or cream; rare steak or loin chops, with fat; cream toast: a soft boiled or poached egg; a half-pint or more of milk; a small cup of coffee if desired, and honey.

10:30 A. M. to 1 P. M.—Patient rests and exercises gently.

1 P. M. Dinner.—This comprises the substantial meal of the day, and may consist of soup, bread, butter, roast beef, mutton, game, at times fish, with potatoes mashed with cream, or fried in bacon fat, vegetables, except such as are indigestible, as pickles, cucumbers, etc., and a half-pint of milk. Dessert: fruit and cream, ice cream, chocolate pudding, rice pudding, whipped cream and cream molds, wine. This meal should be served in courses, and from one hour to one hour and a half of time should be occupied.

2:30 P. M. to 4 P. M.—In pleasant weather the patient should be compelled to spend this time outdoors, in the sunshine, lying down, well covered with blankets when the air is cool. It is essential that the patient shall not be allowed to rise for one hour and one-half. In winter a sunshiny room can be used instead of a veranda. At 4 P. M. when it can be obtained, the patient should drink milk freshly drawn from the cow. The quantity should be unlimited, the patient drinking to satiety.

After drinking the fresh milk, a brief period of exercise, walking or gymnastics should follow.

7:30 P. M. Supper.—Soup, warm and cold meats, beer or wine, coffee; one hot dish of meat.

9 P. M. A glass of hot milk. The patient must retire at nine o'clock, and have at least ten hours of sleep.

The patients are instructed to eat slowly and masticate thoroughly, drinking all liquids in very small swallows.

The food must be well prepared and richly cooked.

I have already remarked that a judicious use of liquors is allowable; I go further, and advise that a phthisical patient should never be without a flask of whisky or brandy, and when fatigued should take a teaspoonful or two. Injudicious use of liquors is to be condemned. By excessive use of liquors great harm is done, without any regard to the sinfulness of the habit. In case of anemia, a cool skin, a slight chill or a morning subnormal temper-

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ature is present, Detweiler prescribes, with good effect, two teaspoonfuls of pure brandy every hour or two, about two ounces each day, with a glass of brandy milk punch before retiring. In combatting the fever alcohol proves to be the best antipyretic.

BATHS.—After exercise the body should be sponged for a few minutes with tepid water, quickly washed with cooler water, and dried with a soft, absorbent towel, then the skin rubbed briskly with a coarse towel; such a bath should not occupy over ten minutes.

In case the patient is too feeble to take a tub bath, an attendant should give a sponge bath. If bathing with water is uncomfortable, a dry salt bath may be given. A good method of giving this is to soak coarse towels in a saturated solution of salt, and dry. The patient can be rubbed over the body with this salt towel.

CLOTHING.—Woolen, preferably the hygienic underwear, must be worn the entire year. Heavier underwear than would be worn in health must be used, and the outer clothing may be changed in weight according to the various changes of temperature.

GENERAL REMARKS.—As this plan of treatment progresses, the patients soon learn to sleep with their chamber windows open at night. Pure water must be at hand and scrupulous cleanliness observed. Such patients should have their own linen, handkerchiefs, napkins, dishes, etc. But complete isolation is impossible, and the patient need not be aware of the fact that no one else is allowed to use his dishes, etc. The cuspidors should contain bichloride of mercury solution, and the patient obliged to expectorate into them. Better still to have the patients expectorate into paper cornucopias containing absorbent cotton, or paper sanitary spit-cups that can be immediately fumed. The ceiling, walls, floors, tables, beds and chairs of the patients room should be scrubbed occasionally with antiseptic solutions. The patient should sleep alone.

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THE MEDICAL PROFESSION IN POLITICS.

By ARTHUR R. REYNOLDS, M. D., Chicago.

We have all frequently heard it said that medical legislation in our country is far behind the needs of the times; that the standard of educational requirements in many of our colleges, is too low; that our public hospitals and asylums for the insane, built for the cure and care of those suffering from disease, are often superintended and managed by men having no medical education whatever, or by medical men not fully trained for their duties; that our boards of health are too often filled by men who have but a shadow of title to a place in the profession, possible never practiced medicine a year in their lives and consequently know but little of a physician's duties and trials, and have never shared in the joys that come from the successful treatment of disease; that the people are not fully protected from the medical confidence man, who, by terrifying and obscene literature and rascally promises to cure diseases that do not exist or are incurable, filches hard earned money from a confiding public who drink gallons of his decoctions at the expense of their digestive apparatus; that the public know too little of the laws of hygiene and that well known contagious and septic diseases continue to flourish and carry off their victims because of violation of hygienic law. If all this be true, and I think it is, it is due to the fact that we as a profession have not done our whole duty to ourselves or to the public.

Physicians with us, when compared with other countries, are but little in politics, probably because our politics, particularly our city politics, are generally considered to be corrupt and demoralizing. The majority of the profession, in order to get a living, think it necessary to toady to everybody's whim and rarely have the courage to let their patients know they have any well-defined political principals of their own. We live in an age when men and women, of like interests or occupation, band themselves together in organizations and all act as one individual whenever any great project is to be advocated. We see and hear much of labor unions to advance the interests of laborers, and we hear of labor parties in politics and we know that all other parties to-day bow down at their shrine. We hear in turn of trusts and combines of capital and the employers of labor to advance their interests. We see in our own city, in the present municipal campaign, an iron-clad union of nearly all the great daily newspapers,

Read before the Practitioners' Club, March 27, 1893.

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without regards to past political affiliation combined even to the extent of suppressing news of the doings of the opposite party and all for the purpose of defeating one man.

When judges for our courts are to be elected, we read of a bar primary where the lawyers express their choices for judges and generally succeed in forcing their choice upon the people. Even the clergy are organized and do not hestitate to advocate their choice for office in ringing appeals to their flocks, and even in prayer ask aid for their cause from the Throne on High.

Almost every other occupation under the sun is organized and makes its influence felt in some direction or other, but generally in politics. Why, I ask, has not the medical profession and kindred occupations made a move to protect themselves and the people from dangers that they best of all understand?

If one thousand physicians, residing in Chicago, were organized so thoroughly that they could act as a unit and a like number of druggists and another like number of dentists, whose interests are closely allied to ours, we would have an organization under our control of three thousand men, not only three thousand voters, but three thousand men who can, if once aroused, control more voters than any other like number of men in the city. Certainly they can control votes enough to turn any election to the side that receives their undivided support.

There is not a practitioner before me who has not twenty, thirty or more voters, bound to him by ties so strong and so dear, that they would respond to any earnest and honorable request he made of them. Yet knowing of all this unharnessed power within us, we sit supinely down and complain from year to year that the so-called medical man, appointed to public medical positions, are generally men unknown to us, and wholly out of touch with the profession.

The remedy, gentlemen, rests in organization. The medical man must be aroused to a knowledge of the power he has slumbering within him, and be encouraged to come to the front and use it. I do not advocate any organization for the sole purpose of getting all the offices we can, for there is a large and a humane work to be done, that can only be done by the profession. For instance, in disseminating knowledge to the public upon the germ theory of disease and how to prevent the germs from propagating and entering our bodies. Let the public once become fully enlightened upon this topic, and they will see to it that the doctor or midwife will not approach the lying-in woman with unclean hands

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or clothing and thus make septic diseases in confinement practicably unknown. They will see to it that proper medical officers are put on guard to prevent any devastating disease of foreign origin from encrouching upon our territory, to claim its victims among us, to impede our commerce or place in jeopardy such a vast and beneficent enterprise as the present World's Fair. They will see to it that the medical fakir and mountebank will be relegated to the auction room where their peculiar talent can find its legitimate sphere. They will place at the head of our medical institutions, men of thorough education, finished and enlightened as to the needs, the hardships, the thoughts, the life and the diseases of the race, by serving a sufficient apprenticeship in the broadest and most instructive of all schools the general practice of medicine.

If we cannot have an organization wholly independent of party politics, then physicians should encourage each other to join the ward clubs of their political faith, and there act their part. Indeed I have seen that there is a demand for educated men in those clubs and have often noticed when a physician is available, he is pressed into service as President or in some place where his influence can be felt.

Allow me to ask, what class of men is there in the community so fitted by a knowledge of humanity to better lead in political sentiment? Who is there that gets so close to the people and so many of them, as the general practitioner of medicine? Who is there that has so many opportunities to promote better thought and loftier purposes,and who is there more rounded out in his parts than the matured physician? It can scarcely be the lawyers, for they are constantly antagonizing some one, are much of their time advocating or defending that which they know to be wrong, are constantly making enemies of some and are all the time engaged in some deep-laid mysterious schemes, and yet the legal profession largely control elections and either fill or dictate who shall fill nine-tenths of all the offices, and guide to suit themselves the enactment of nearly all laws.

It cannot be the clergy, for they deal with only one side of humanity and then when people are on their good behavior and are dressed in their best. It certainly is not the saloon keeper, for nearly all men of high and low degree, believe his calling to be debasing and that it lures men in the wrong direction. Yet to our shame be it said, he is to-day the most important factor in political life in large cities. Such a condition of affairs should not be per-

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mitted to continue, and we should do our part to put a stop to it, as far as possible. It does not matter which party is looking for votes, whether it is the republican party or the democratic, the funds of each find their way to saloon bars and every effort is made to get their influence.

Should not our power be sought after too? I think it should.

At this time I can only recall one elective office that should be filled by a properly equipped medical man, and that is Coroner of the county. There are over one hundred counties in the State and each should have a physician for Coroner. Why not make a beginning now, and land one of our kind in the Coroner's office in 1896 in this county. Why not agitate the question so that it will be taken up by physicians in every county and spread over the entire northwest.

It is not alone for purely medical positions that we should seek, but for seats in all our legislative bodies. The Chicago city council has some twenty saloon keepers in it; some of their seats might be filled by physicians without loss to the municipality. Our State legislature could be improved vastly by transferring the seats of some corrupt or ornamental members to broad gauged physicians. There is no end to the places in the commonwealth that they could fill with dignity, ability and professional propriety.

VENETIAN BUILDING.

VARIX MAMMARY.

BY GEO. W. EMERY, M. D., CHICAGO.

The case under discussion presents so unique a character as to cause the writer to think that it should be presented to the profession. Having made an extended observation of the surgical and obstetrical works, he has found no similar case recorded.

The question of mammary varicose veins seems to have been one which has seldom been of such a nature as to be distinctly a cause of death, as in the case which we shall hereafter consider.

Other medical counsel had been in the case without benefit; the patient living some miles from the city had been brought in and under my observation because of the difficulty in obtaining medical assistance at her home. The pain in the glands was increased on patient taking a prone position, in which position she was extremely nervous and restless.

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That the mammary anastomotic circle circulus venosis, including the axillary and internal veins, should become so entirely enlarged and distorted as to cause the condition which were found in Mrs. A. G., was a matter of surprise to the writer and may be interesting to the society.

The case is that of a young married lady, primpara, who, immediately after marriage had become pregnant, and when consulting the writer had reached seventh month of gestation, presenting the following conditions: Both mammarys were enormously enlarged and upon measurement the right gland was found to be 20½ inches in circumference at the base, while the left gland measured 22½ inches and each protruded 12 inches from the intercostal space.

The integument was of a yellow hue, attenuated, glossy and pitted on pressure. Tenderness marked various parts of the glands, and throbbing, pulsating pain was complained of. Patient was very feverish, and had accompanying chills with hectic flush. Every indication was that of an enormous mammary abscess; the tongue was furred, and appetite poor. Patient stated that soon after conception occurred the glands commenced to enlarge and the enlargement increasingly continued to the present condition. The glands while presenting all the appearances of an abscess, yet had manifested no especial point of pitting. Diagnosis arrived at was mammary abscess, and acting upon the surgical rule laid down by many authors, viz.: "Whenever the abscess is accompanied by great suffering from tension and is likely to produce structural damage, early interference is proper." And as patient had very rapid and jerky pulse 120, hectic flush, anxious expression, with rapid respiratory action 36 per minute. On the day following the examination the writer proceeded to operation with trocar and canula. The instrument was introduced to the sternal side of the left gland about 3½ inches from the nipple, when upon removing the trocar a stream of venous blood poured forth from the canula to the extent of about four pints. No change was manifested in the size or appearance of the organ; same glistening and indurated conditions were apparent.

It was then decided to puncture the opposite gland and the instrument was again introduced at an angle almost directly beneath the nipple and on a line with the sternum; the same result followed, and an immense flow of venous blood came from the canula. The total amount of blood drawn approximated eight pints.

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Patient manifested no unusual signs of weakness, but was placed in a prone position in bed. Respirations increased rapidly; pulse markedly weak at wrist, but patient stated that the breasts were feeling much easier. The glands were dressed with adhesive plaster compress, drawn from sternum posteriorly and transversely about the organ, making a firm pressure, but no reduction in size was manifest nor in any way any change in the appearance of the glands; pulse 132.

Patient was seen again in the evening a few hours after the operation; pulse was stronger and fuller and lips more ruddy and natural; said she had no pain in a prone position; respirations at this time 44; pulse 144. Stimulants were given and patient began to complain of pains, locating them in the gastric region; excessive thirst; skin moist and clammy; tongue slightly furred but moist. Gave five two-grain capsules of quinine, one to be given every two hours, and had hardly left the house and proceeded but a few steps, when I was summoned to return.

Found a seven months' fetus had been expelled, still-born. The placenta was removed and patient was placed in binder. The expulsive pains were sharp, and but two or three occurred in effecting the expulsion. But little hemorrhage was manifested. Two hours afterward the patient was much depressed, with weak, feeble pulse; facial expression anxious and pinched; stated she was feeling better, had no pain and breasts were very much easier. She thought she would be very much better in the morning. General indications, however, was that of collapse.

Patient continued to sink and died a few hours afterward. Glands continued in the same distended condition, only changing in appearance to that of cadaveric pallor. On the subsequent day measured the same circumference and diameter.

An attempt was made and urged for post-mortem, but was resisted by the friends of patient. Of course this internal condition of the glands as to the varicose nature of the vessels is therefore only based upon the nature of the blood that came from the organs, and which could only be accounted for by the concession that the axillary or mammalary veins had been punctured.

The size of the organ continuing led to the same conclusion, and further that this fluid was refilling glands as rapidly as it was drawn from the body, or that the glands would reduce themselves if the fluid which filled it had not returned and remained in a condition of stasis.

I recite the case with a view of placing it on record that a

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similar condition of the mammalary glands arising from a varicose condition of the vessels and in a primipara, may be met with great caution and very conservative action. In the light of subsequent developments, we think our treatment may be discussed with benefit to the profession, and the record be read with interest and benefit to all.

282 S. CAMPBELL AVE.

REPORT OF MILK INSPECTION IN CHICAGO.

BY DR. ADOLPH GEHRMANN, CHICAGO.

MILK INSPECTOR.

It is highly important that those municipal departments that have a direct bearing upon public health should make reports to our societies where the subject may be openly and freely discussed, and in this instance it is more proper because the establishment of the milk division originated in the work of this society. The milk ordinance, under which the division is operated, is unusually good; in addition to the implied inspection, sanitary inspection is explicity considered a part that is omitted in the ordinance of many cities. We are very near Denmark, and more particularly Copenhagen, in the value and completeness of this ordinance.

Prof. E. B. Stuart is chief of the division, and he is assisted by nine inspectors. There is an office, a laboratory and several horses and wagons for the use of inspectors. When it is known that 125,000 gallons of milk are brought into the city daily, it is clear that the division is none too large to regulate the milk business of Chicago. There has been no opposition to inspection. In only two instances has the taking of samples been refused. Most of the dealers look upon the department in the right light and are ready to conform to its requirements, but they are always anxious that the regulations shall be general.

There are now being collected from eighty to one hundred samples a day. These are analysed from a chemical, biological and microscopical standpoint. The sample bottles that are used hold half a pint, and the men take samples from wagons, trains or stores and bring them immediately to the laboratory. If, upon analysis, these samples are found to run below grade — the grade for fats being three per cent of the total weight of the milk—an-

Chicago Medical Society April 17, 1893.

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other sample is taken from the same place, and if this is also below grade a sealed sample is taken. Upon the analysis of this sample will depend the bringing of a suit against the dealer. Thus far thirty or forty suits have been entered.

The chemical work in the laboratory includes the determination of the butter fat and the investigation of coloring matters, expanders and adulterations. The fat is estimated by the Babcock method, the principals of which are as follows:

A measured quantity of milk is placed in small long-necked bottles, a quantity of strong sulphuric acid is then added; this destroys the casein, liberates the fat. The bottles are now filled up with water and whirled in a centrifugal machine. As the necks of the bottles are inward, the fat rises, and the amount may then be read off from the graduations which are on the neck of the bottle.

Fat in sealed samples is determined by the Sochlet method, which is more accurate. As regards the use of adulterations and coloring matter, it has been found that they are little used in Chicago. The chief coloring matter used is caromel. The only expander of consequence that is used is the condensed skim-milk of the creameries which is added with water to the milk. Upon taking the specific gravity of these samples it is found to be high The fat may be normal or a little below, but upon examination for solids, not fat, these will be found very high. One or two samples even gave as high as twenty-two or twenty-three per cent. This, with five per cent of cream would leave eighteen per cent of solids not fat; the difference is marked as the solids not fat are rarely over nine and five-tenths per cent. Another expander of some importance, and one that is used after the milk has been skimmed, is a mixture of the parts baking soda and one part salt. This brings back the full taste of the milk after the fat has been removed, and it is difficult to tell whether the milk is normal or not. The solids in these cases will also be high, but the ash will determine the character of the expander. In some samples it has been as high as ten per cent, while the normal ash is eight-tenths per cent. The bacteria in the milk are determined by the plate culture method on a gelatin-agar medium. The milk is diluted to one five-hundred part, from this the plates are prepared and the colonies counted when they appear. The microscopical work includes examination of the fresh milk and the preparation of permanent slides from thes ediment and contained bacteria.

The samples of milk taken do not show a great difference from

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those reported upon by other departments. The first 500 samples were collected from the trains as the milk came in. Very few of these ran below grade, 98 per cent being satisfactory. Since the fifteenth of January, 3,700 samples have been taken; lately the collection has been confined largely to stores and wagons; about 22 per cent of these have been below fat, or not up to the requirements of the ordinance for other reasons. Cultures prepared from this depot milk show that there are from three to six hundred thousand bacteria to the cubic centimeter. Cultures from the store and wagon milk showed as an average about two million bacteria to the cubic centimeter. In Boston milk taken from the table an average of fourteen hundred thousand bacteria was found, while from stores and wagons the average was between two and three millions. The microscope slides prepared from the gross sediment are interesting because of the varying character of the sediment. Slides showing bacteria are prepared with the intention of demonstrating the tubercle bacillus. It is not intended at this point, to make any statements in regard to tuberculosis in milk, as this investigation is in progress, a report will probably be made at some future time. In addition to this work the department follows out the sanitary inspection as required by the ordinance. This includes inspection of wagons, dairies, depots and stables with regard to cleanliness and sanitary conditions. Several hundred inspections of this nature have been made, and suits have been entered in eighteen cases. There has been a general cleaning up all over the city. The department has taken a positive stand on the swill milk question; the health department has fought this before, but was only able to deal with the larger dairies. The cases that have thus far been brought under the new ordinance were easily won on purely sanitary grounds, that is, the condition of the stables and the cows, and in most instances the owners decided either to go out of business or to change the character of the food. The principal in the argument is that distillery slops when fed to milch cows, produces an abnormal animal, and that an abnormal animal cannot give normal milk, the ordinance requiring that normal milk alone shall be used for human food.

Something may be said in this connection in regard to infant food, as the question of slop feeding brings one close to it. Milk for infant food is one of the most important parts of milk inspection. In Denmark an additional grade of milk is sold that is called whole milk. This is the milk taken from a selected cow known to be perfectly healthy, and after being drawn it is filtered and deliv-

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ered surrounded by ice. The cost of this milk is about twice as much as the ordinary grade. The milk that is sold in Chicago as pure milk is properly half skimmed milk, as it rarely happens that some of the cream has not been removed. It is true that two of the largest Chicago firms are now prepared to deliver a specially selected milk for infant food. Beyond this whole milk, probably the best food for infants or the sick room is half condensed milk. This milk has simply a portion of the water removed from it by evaporation in a vacuum. It is largely used in the East, and is prepared in this city by one or two firms. There is nothing added to it, and nothing taken from it beyond the water. The amount of casein and salts are thereby increased, and bacteria find it more difficult to grow in it. When water is added, normal milk is obtained.

The position that the milk department occupies toward the public is of some importance as well as is its relation to the milk dealers. It should not be the intention to hinder men in their business but on the other hand, in the interest of the public, the department should preserve a standard all over the city and see that the milk delivered is clean and wholesome. In addition it should arrange for analysis of samples that are suspicious and such as may be desired by the consumer.

4420 Langley Avenue.

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THE

CHICAGO MEDICAL RECORDER.

Journal of the Chicago Medical Society.

Drs. JOHN A. ROBISON, WILLIAM T. THACKERAY, EDMUND J. DOERING
Committee on Publication.

Dr. ARCHIBALD CHURCH, Editor for the Committee.

VOL. IV. NO. 5. NEW SERIES.	PUBLISHED MONTHLY. CHICAGO, ILL., MAY, 1893.	SINGLE COPIES 25 CTS. $2 A YEAR IN ADVANCE.

Society Proceedings.

THE CHICAGO MEDICAL SOCIETY.

Special Meeting at Orpheus Hall, March 27, 1893.

President HOTZ in the chair.

The subject of the "Treatment of Pulmonary Tuberculosis" was discussed, papers being presented by Drs. R. H. Babcock, N. S. Davis, Jr., and Joseph M. Patton. See pages 000, 000, 000.

Dr. J. A. ROBISON: About ten years ago I found a little pamphlet entitled, "Deep Breathing," written, I believe, by a Swedish prima donna, in which she gave her experience in learning how to use her vocal organs. She had been under the training of some of the most noted teachers of the voice in Italy and other countries, and on account of lung trouble setting in she was forced to stop her vocal exercises. By accident she discovered an old Italian teacher of music, who taught her how to breathe correctly, teaching her somewhat in the manner already delineated by Dr. Davis. The common-sense displayed in this little book impressed me so forcibly that I have been in the habit for the last ten years of instructing my patients how to breathe, and I have had the same experience almost as Dr. Davis. I follow somewhat the plan

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that was laid down in this book, that is, I have the patient take these exercises while lying in bed, on retiring at night and before rising in the morning.

Dr. J. C. HOAG: In England from time immemorial there has been a sport very common among all classes of people, from school boys to adults, and all vocations of life, and that is running, which during the last few years has come to be more of a sport in this country, and is practiced to a large extent in the schools, colleges and athletic clubs in all large cities. I believe this to be one of the best methods of expanding the lungs. Of course it is a plan susceptible of great harm sometimes and should be practiced in moderation. I am not a very good runner, but I remember on several occasions finding that I had opened up air cells in my lungs by running, which had not been opened for years before.

On motion, the further discussion of the subject was postponed to April 10th.

The application of Dr. James Selkirk was read and referred to the Committee on Membership.

On motion, the Society adjourned.

JUNIUS C. HOAG,
Secretary.

The Forty-first Annual Meeting was held at Orpheus Hall, with President Hotz in the chair, April 3, 1893.

The minutes of the two preceding meetings were read and approved.

The Secretary read his annual report, as follows:

The work of the Society for the year which is just ended, is in most regards highly satisfactory. Until recently we have labored under the disadvantage of holding our meetings in the midst of highly unsatisfactory surroundings. This serious drawback to the success of our meetings has fortunately been overcome by removal from Washington Hall to our present convenient quarters, which have been secured by lease for one year, with the privilege of occupancy on every Monday night if desired. This arrangement has already proved to be one of importance, for by reason of the opportunity thus afforded to hold special meetings we are enabled to make use of the numerous papers offered without unduly protracting the length of our sessions. Heretofore it has been extremely difficult to arrange programmes of satisfactory length, for we have frequently had much more material offered than we could easily find

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time to consider. By our present arrangement we can have as many special meetings as may seem desirable.

The Secretary would like to call attention to the facilities that are here offered for holding social meetings of the society. Other organizations that meet in these rooms arrange to enliven their meetings with music and refreshments, and we may do the same if the society so elects. A change in place of meeting has nearly always resulted in a temporary falling off of attendance, but this has hardly been the case in the present instance, and with the extreme convenience and accessibility of our present quarters we confidently look forward to a large increase in the average of attendance. Indeed our only fear has been that when once our members have become accustomed to the new place of meeting the hall may prove almost too small for our use.

Mr. F. W. Schmidt has opened a pharmacy upon the eleventh floor of this building and has kindly offered to deliver all telephone messages that come for our members during the meetings of the Society. Mr. Schmidt's telephone number will appear on the notices of each meeting.

The Secretary's report for 1891 and 1892 showed a membership of 585. During the present year members have been added as follows: Restored to membership, 6; regular members elected, 64; membership by courtesy, 10. Total accessions to membership, 80.

Our losses in membership have been as follows: By deaths, 7; dropped for nonpayment of dues, 2; membership expired by limitation, 19; by resignation, 1. Total loss, 29. The total membership at this date is thus seen to be 636.

It is an interesting fact that we have now no less than fourteen members emeritus, that is to say members who are shown to have paid their dues to the society for twenty-five years, and who are thereby exempted from further payments. There may be still others who are entitled to this distinction, and accordingly the Secretary and Treasurer would be glad to be made acquainted with such claims.

It is worthy of note that an unusual number of new members reside outside of the city, many of them, indeed, living at great distances from here.

During the fiscal year we have held meetings as follows: Annual meeting, 1; regular meetings, 17; special meetings, 3; total, 21.

These meetings were attended by 1,277 members and visitors, the average of attendance being 61.

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The work of the society may be seen by the following tabulation:

Number of papers read	55
Number of cases reported	16
Number of patients exhibited	16
Number of cuts, drawings, photographs, and charts	90
Number of instruments exhibited	9
Number of specimens exhibited	29
Number of microcsopic slides	11

Our last editions of the Constitution and By-Laws, together with list of members, was published January 1st, 1892. It would be well to publish soon a supplement to this edition, and the Secretary begs that any changes that may be required in making up a new list of members such as date of election, address, etc., may be brought to his attention.

The running expenses of the society have materially increased during the year, and it is important that payment of dues be promptly made at the proper time. Furthermore, although we have had no trouble in meeting all our obligations, it seems important that we should endeavor to increase our membership more rapidly. So far as the Secretary knows, no systematic attempt to do this has ever been undertaken, but the Secretary would suggest that it would be well to do this during the coming year. It might be thought well, for instance, to employ a canvasser for the journal who could at the same time solicit new members. If in addition to this each member would make it his endeavor to increase the membership from among the circle of his personal acquaintances it would be no difficult matter to add 250 or 300 new members to our already long list.

Thanking the members for their courtesy and kind coöperation, the above report is respectfully submitted.

JUNIUS C. HOAG, Secretary.

On motion, the report was accepted and placed on file.

The Treasurer rendered his annual report, as follows:

Dr.	
Cash from former Treasurer	$1,181.67
Initiation fees	188
Sinking fund	500
Interest on sinking fund	24.85
Directory for nurses	328.25
Library fund	149.38
Annual dues	1,435
Total	$3,806.65

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Cr.

Treasurer	$ 100
Editor	400
Chicago Medical Record	500
Secretary	200
Secretary's office	310.80
Treasurer's office	131.80
Rent	325
Reporting	122.85
Directory for nurses	674.35
Cash on hand	1,041.85
Total	$3,806.65

HAROLD N. MOYER,
Treasurer.

On motion, the report was accepted and placed on file.

Dr. MOYER gave notice that he would move to amend Article IV. of the By-Laws so as to make the first section read as follows:

The annual initiation fee shall be five dollars which shall include the annual dues for the current fiscal year in which the member is elected.

The report of the LIBRARY COMMITTEE was as follows:

The Newberry Library Medical Department.

During the past year steps have been taken to fill all of the current periodicals, about 360 in number. Already about one-third are practically completed. About 1,200 volumes have been bound. Some new works on current medical subjects have been bought, but as the profession has desired the completion of the periodicals, exclusive purchase of new medical books is deferred to a later date. The various catalogues are in a state of progress and it is expected to move into the new building in the course of a few months. The local profession is using the department more as the completed sets give better results for work. A monthly average of 250 readers use this department. The profession has responded generously in giving books and pamphlets, and local authors have sent in copies of their works. The number of volumes is between 10,000 and 11,000. The department is open on Wednesdays from 9 A. M. to 10 P. M.

D. W. GRAHAM, Chairman.

On motion, the report was accepted and placed on file.

Dr. J. A. ROBISON made a brief verbal report of the work of the Committee on Publication, and on motion it was ordered accepted and placed on fille.

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On behalf of the COMMITTEE ON DIRECTORY FOR NURSES Dr. J. M. Dodson presented the following report:

Your committee having in charge the Directory for Nurses begs to report that the location of the directory has been changed to the northeast corner of Paulina and Jackson Streets, the residence of the Chairman of the committee. This was deemed expedient for several reasons, the most urgent of which was the necessity of using a telephone. In spite of the most strenuous efforts it was found to be impossible to procure a telephone at the former address under several months. It has been ascertained that the calls for nurses practically all come by telephone and it is not essential, therefore, as was at first thought, that the directory be located in the center of the city. The Chairman has assumed the management of the directory for the present and guarantees that it shall be no further expense to the society. The directory is fully equipped for work and has about eighty excellent nurses on its list, about sixty of whom are graduates of training schools.

Your committee desires again to call attention to the fact that it is eminently desirable that this directory should supplant all similar institutions in the city. The convenience and best interests of nurses, physicians and the public alike can be best served by one central medium of communication between nurses and the public. The plan upon which it is sought to bring this about is not an experiment but has been brilliantly successful under conditions very similar to those obtaining here, in Boston and Philadelphia. In evidence of this we beg leave to submit the following letters from eminent Philadelphia physicians (Letters from Drs. Chas. K. Mills, H. A. Hare and W. W. Keen): It need hardly be said that these results have been obtained only by the hearty, enthusiastic support of the physicians and through them of the public. Your directory is now fully equipped to serve you in the manner for which it was designed. If the members of the society desire to continue in the custom of keeping each his own list of nurses, communicating with them directly whenever possible and using the directory only as a last resort, or if they continue to consult the list of names at the drug stores and training schools, then it will be evident that there is no demand for our directory and we will certainly prove a failure. If, on the other hand, you wish to be relieved of the great annoyance of our present methods of keeping track of nurses, of which there has been such a general complaint, will you not say to the nurse who applies to you for work, "Register at the Chicago Medical Society Directory for Nurses and I will seek your services

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there," and direct the family needing a nurse to the directory, give ing them, if you please, the name of the nurse or nurses whom you wish to commend, or leaving to the Secretary the selection of a nurse for the particular case. With this sort of support from the members of the profession the directory cannot fail of success and it will soon come to be the only channel of communication between the nurse and the public. To such it must prove, as it has done in Philadelphia, a very great benefit to all concerned.

It would greatly facilitate the work of the directory at present if some of the other means of communication were abandoned. To this end your committee begs leave to submit the following resolutions:

Resolved, that the druggists of the city be requested to co-operate with the profession in the establishment of the Chicago Medical Society Directory for Nurses by directing to it person who are in search of a nurse, and that they be especially requested to refrain from keeping any separate lists of their own.

Resolved, that a committee of three be appointed to confer with the authorities of the various training schools of the city where directories are kept and to arrange if possible some plan by which these lists of nurses can be transferred to the directory of the society.

Dr. Dodson also submitted the following financial statement of the directory.

Financial statement of the Chicago Medical Society Directory for Nurses, April 3, 1893.

RECEIPTS.

From nurses registration fees	$345.00
From fees for furnishing nurses	29.00
From sales of postals	6.26
	$380.26
Due from registration fees	$ 30.00
Due from fees for furnishing nurses	27.00

DISBURSEMENTS.

For salary of Secretary, (Oct. 10th to Feb. 10th)	$300.00
" " Feb. 10 to March 3d (at $6.50)	19.50
For rent of rooms in Argyle Bldg	206.50
For printing and stationary	101.45
For desk	28.00
For blank case	8.00
For messenger fees	.25
Advertisement	5.00
	$663.70

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On motion, the committee's report was adopted and placed on file and the committee continued for one year.

THE NECROLOGIST read sketches of the lives of the late Drs. J. Suydam Knox, A. Reeves Jackson, Milton Coe, H. M. Scudder, and J. H. Wilson.

On motion, the necrologist's report was accepted and placed on file.

THE PRESIDENT made a brief verbal address in which he pointed out how the meetings might be made more interesting and attractive. (1) By limiting the time for reading a paper. (2) By not allowing a paper to be read before the society if it has already been printed. (3) By the establishment of a Board of Directors to arrange all the business affairs of the society, such as (a) auditing bills, (b) attention to the business of the Judiciary Committee, (c) the reception of all applications for membership and the investigation of the standing of the applicants, together with rendering a decision as to the admission of candidates. This Board of Directors to be composed of the President, Vice President, Secretary, Treasurer and three ex-Presidents, one to go out each year.

The President's address was received with applause.

The election of officers was then held, with the following result:

President, Charles Warrington Earle; First Vice President, L. L. McArthur; Second Vice President, H N. Moyer; Secretary, J. C. Hoag; Treasurer, A. R. Reynolds.

Committeemen were elected as follows:

Judiciary Committee, F. C. Hotz; Membership Committee, H. P. Newman; Library Committee, D. W. Graham; Publication Committee, E. J. Doering.

On motion, the following appropriations were made from the treasury for the year 1892–93: For Secretary, $200; for Editor $200; for Treasurer, $100.

On motion, the Secretary was instructed to issue delegates' certificates to such members as desire to attend the meeting of the American Medical Association.

Dr. MOYER moved that no delegate's certificate be issued until such time as the society's attitude in the matter of professional ethics be determined. On motion, Dr. Moyer's motion was laid on the table.

On motion, the thanks of the society were extended to the retiring officers for the efficient work done by them.

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There were eighty members and visitors in attendance.
On motion, the society adjourned.

JUNIUS C. HOAG,
Secretary.

Regular Meeting at Orpheus Hall, April 17, 1893.

The meeting was called to order by the President, Dr. Charles Warrington Earle.

The minutes of the previous meeting were read and approved.

The committee on membership reported favorably on the applications of Drs. W. S. Hector, 3656 State street; A. C. Godfrey, Galena, Illinois, and James Selkirk, Aurora, Illinois; and on motion the Secretary cast the unanimous ballot of the society for their election.

The applications of Drs. Lester E. Frankenthal and Goodkind were read and referred to the committee on membership.

Dr. M. R. BROWN was called to the chair by the President.

Dr. JOHN A. ROBISON read a paper on the subject of Treatment of Pulmonary Tuberculosis, see page 000.

Dr. N. P. PIERSON. A few years ago I thought climate was very important, but I tried it everywhere and found it fail much the same as medicine does. All kinds of specifics and inhalations have failed because they can never reach the disease. I am sorry to see codliver oil recommended, there is no medicine in it, and it ruins the stomach. We all know that consumption is caused by the tubercle bacilli, and we are all liable to inhale it, but there is one thing that saves us, tubercle bacilli, unlike other bacilli, wants its own soil, and that soil has to be developed. The best thing in these cases is prevention. In Europe they don't pretend to have any special medicine but depend upon hygienic measures. Last year I went down to Florida and found one place that I thought a good deal of as to climate, but there is one drawback to Florida, that is, you can only get condensed milk there. As I have already said, I rely upon an early diagnosis in the treatment of consumption.

Dr. W. E. CASSELBERRY. The few remarks I will make are intended simply as supplementary to the paper.

First, as to the percentage of recoveries that can be expected from pulmonary tuberculosis. We must disabuse ourselves of the idea that it is necessarily fatal, sooner or later, in all instances. A few cases recover, practically, even under poor conditions, and under favorable conditions it has been conclusively shown by

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Dennison that forty-five per cent of cases of the first stage of tuberculosis, in which the diagnosis was unquestionable, recovered and had remained well for from three to five or more years. Many of these patients being able to again resume their residence in their native climate, while many of them continued to reside in the region to which they had gone. This serves to introduce more particularly the climatic treatment of the disease. My confidence is placed chiefly in the climatic treatment, and whatever may be said derogatory to the same, that "it is cruel to send patients who are nearly moribund to strange countries" etc., it does not alter the fundamental truth that a very much larger proportion of cases recover under the favorable conditions of a well-selected climate than can be cured in moist, changeable, and generally inclement places. Therefore I am convinced that the diagnosis having been made with reasonable certainty, whenever possible the case should be peremptorily ordered to a climate well adapted for it. Also, that through organized beneficient aid on a large scale, all individuals thus afflicted should be enabled and induced to embrace climatic treatment, both for the preservation of their own lives and for the better protection of society in general. I can forsee no other avenue of ultimate universal escape from this scourge.

To determine the best resort for each individual case should be the duty of the physician and the patient should not be left to wander over the earth in response to ill-advised recommendations of mere acquaintances.

It is not possible even to summarize the subject in the few minutes at my disposal, but briefly speaking, and from personal observation of that belt of country which extends from Texas, or more especially from El Paso on the south to Denver on the north, and from the eastern slope of the Rocky Mountains to the western sloap, I would say we had a belt of country especially favorable to the treatment of the first stage of tuberculosis in individuals under forty years of age, both male and female. And favorable also to the second stage, provided the excavation is not yet so extensive as to diminish materially the pulmonary area for respiration. These patients do well in that region for the following reasons: First, on account of the dryness of the atmosphere; it being probably the driest of all regions, with the exception of the great deserts. It has been shown over and over again that tuberculosis thrives on mositure, and that a dry atmosphere in inimical to its development. Secondly, this belt has an altitude of from four to ten thousand feet, the best points for selection having an elevation of from four to

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seven thousand feet. This has the effect of thoroughly expanding the lungs, of distending every air cell which is in a condition to expand, and of draining the air cells and bronchial tubes by evaporation into the dry atmosphere. Septic secretions with attendant febrile reaction are thus rendered inert, resulting in rapid amelioration of cough, hectic sweating and emaciation. Thirdly, patients also receive benefit from the large amount of sunshine this region enjoys, which together with the invigorating atmosphere tempts them to outdoor exercise. I have not the exact figures, but the number of sunshiny days is largely in excess of that which obtains in most other regions. As a rule patients over forty years of age should not be sent to this locality, as at that time the cartilaginous parts of the thorax are ossified to a greater degree and the chest is not supposed to be as capable of throwing expansion in response to the demands of rarefied air, but to this rule there are many exceptions for individuals older than this are frequently found there doing very well. From frequent visits to this region I would give it as my personal experience and belief that Dennison's figures are correct concerning the large percentage of cases which recover under the conditions which maintain there. With plenty of outdoor exercise, good food and reasonable professional care, which they can always obtain in that region, the chances are favorable to recovery.

Of the climate of Southern California I have less personal knowledge, but I take it the cases that should be sent to Southern California in preference to the Rocky Mountain region, are those which are more advanced in the disease or older in years which are not proper cases for the Rocky Mountain climatic treatment. The mountains or foot hills some miles back from the coast afford dryness, sunshine and salubrity similar to the Rocky Mountain region, and with less altitude, i. e., from one thousand to twenty-five hundred feet. Patients do well there. I would refrain from sending tuberculous patients to Florida on account of the dampness at that place. There are points in South Carolina and Georgia which are favorable to the cure of the disease, but which, I believe, are less effective than those above mentioned.

One other point: patients sent to the Rocky Mountain region should be ordered to remain there from three to five years, and if possible to make a permanent residence in that locality.

Dr. E. F. WELLS read a paper entitled "Calcium Sulphide in the Treatment of Tuberculosis."

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Dr. N. P. PIERSON: I have used calcium sulphide with benefit in a good many cases. I have used it on the skin with good results, but it did not cure every case.

Dr. ADOLPH GEHRMANN presented the subject of milk inspection as carried on in Chicago under the new ordinance.

On motion, the Society adjournd.

ARCHIBALD CHURCH,
Secretary pro tem.

THE CHICAGO PATHOLOGICAL SOCIETY.

Regular Meeting, April 11th, 1893.

Dr. C. D. WESTCOTT, President, in the chair.

Dr. G. W. EMERY read a paper entitled Varix Mammary. See page 338.

Dr. MOYER: Was there any auscultation made of the chest, or of the gland itself? Was there general symptoms of sepsis? Was the temperature of the gland itself much increased?

Dr. EMERY: The glands were so large and protruded so enormously that it was very difficult to make auscultation except posteriorly. The breast pitted on pressure and looked so thoroughly like an abscess that I was convinced that it was an accumulation of pus. I think the mistake I made was in putting in a large trocar and canula instead of an exploring needle. There was no sepsis. By the feeling of the hand and the appearance of the face, which had a hectic flush, there was every indication of intense fever. There was no enlargement of the veins on any other part of the body.

Dr. MCCULLOUGH: Mrs. McCullough with her last child had very much the same thing. I used a bistoury and got blood. She has passed the menopause for perhaps ten years and still there is a discharge of serum and blood nearly every day.

Dr. MOYER: A diagnosis was practically impossible in the absence of a post-mortem. The condition is certainly an exceptional one. It might have been an aneurism, but it seems to me the most probable diagnosis would be one of enlarged veins and phlebitis.

Dr. ANGEAR: Is it not more likely to have been a thrombosis?

Dr. E. R. LECOUNT presented specimens of congenitally undeveloped kidney.

These specimens are of interest to the pathologist as a curiosity, but to the surgeon they are of particular value, because he must con-

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sider the occurrence of malformations in the kidney other than those due to disease. Malformations not due to disease are of various kinds; there is the horseshoe kidney, which is somewhat more frequent in occurrence than this condition, and we have the solitary kidney, or the kidneys fused together. The frequency of the occurrence of this condition, that is congenital nondevelopment of the kidney, is a matter of some importance. Morris, of London, in a review of some eleven thousand post-mortem examinations made in the hospitals there, states that this condition, namely, entire absence or extreme congenital atrophy, as he calls it, occurs once in 3,992. Weir, of New York, has found this condition once in 5,000 cases. Another physician in New York in 1,500 post-mortems has found this condition once. In our post-mortem work at the hospital I have seen one instance of entire absence of one kidney, presumably due to disease. In the present instance the ureter of the smaller kidney is patent throughout its extent, so we do not have to deal with a case of dilated ureter and consequent kidney atrophy, but nondevelopment. If this kidney had become smaller through disease we would have found more marked changes on post-mortem examination than were present, the capsule could not be as readily removed and there would have been cysts in the cortex or enlarged vessels at the base of the pyramid as occur in the small kidney accompanying arterial disease. Without a microscopical examination I cannot state definitely as to the condition of the larger kidney, but it does not seem to have been much changed, there were a few small cysts in the cortical portion which apparently contained a colloidal substance. I was in doubt about using the term congenital atrophy because it seems to presuppose a condition of previous normal size, but this kidney has never been larger than at present.

Dr. McCULLOUGH: In a post-mortem during the war I found but one kidney at first, but on further search I found a second kidney not larger than a white bean, which had never performed any function.

Dr. J. M. PATTON: I remember making a post-mortem about two years ago on a patient who presented a right kidney weighing eight ounces and a fraction over, and a left kidney weighing about one and a half ounces. I think the right kidney was hypertrophied and was performing the entire renal functions for the body. The left kidney was very much contracted, was very firm and had several small cysts such as are usually found in chronic interstitial nephritis. The ureter was somewhat contracted and thick-

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ened. This kidney was not secreting any urine at all. The question came up in that case as to whether it might not be congenital, and I objected to that on the ground that the disease in the other kidney furnished a reason for the hypertrophy of the right kidney and also for the failure of the heart, which occurred in the case. In Dr. Le Count's case the heart did not present any unusual condition, therefore there was probably no continued functional inability on the part of the kidneys.

Dr. JOHN M. DODSON: A few evenings ago in the dissecting room I came across a horseshoe kidney, which, while not the most rare of kidney malformations, is sufficiently rare to be of interest. This has been dissected out with its attachment to the aorta and vessels leading to the kidney. There are two ureters and two pelves. This kidney corresponds to about the situation of the horseshoe kidney as it is usually found, lying a little lower than normal, the lower border of this corresponding to the fourth lumbar vertebra. You will observe that the right kidney is larger than the left; they are connected, as usual, by true kidney tissue at the lower extremity and each is provided with a separate pelvis and a separate ureter.

Of malformations of the kidney, that which Dr. Le Count has described of congenital hypotrophy of one, or hypertrophy with corresponding lack of enlargement of the other, is the most common, occurring, according to the statistics of the London hospitals in some 14,000 cases, about once in 140 times. This comes next in frequency, occurring about once in 1,600 times, while complete congenital absence is rare, occurring only once in 3,000 cases. Union of the kidneys at the superior border is also exceedingly rare and they are less commonly united along the whole length of the kidney. Naturally these deformities are of more interest now than before the days of kidney surgery. In a case like Dr. Le Count's, where one kidney is larger than the other, the large kidney may become the seat of disease and require removal and then it would be a question of how much secreting tissue there was in the smaller kidney. We know that the normal kidney tissue is twice in excess of the needs of the system, and one kidney can be removed without disastrous results.

Dr. H. J. M. ANGEAR. There is a belief in the minds of a large number of the profession that if one kidney be removed the other will enlarge so as to do the work of both, but that is contradicted by some of our best authorities, and I think we can see that it is an utter impossibility. There can be no process by which

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the number of the pyramids nor of Malpighian corpuscles can be increased.

Dr. LE COUNT, in closing the discussion, said: In regard to the matter of differentiation between congenitally small kidney and one small from disease, I have brought along a small kidney which was removed the other day. It is a case of secondary contracted kidney and illustrates the difference between kidney contracted from disease and a congenitally small kidney.

In regard to the matter of a congenital increase in the working capacity of one kidney, it is a well-known fact that when the cortical portion of the kidney is diseased we may have in the medullary portion a condition of convolution or reduplication, a doubling up of Henry's lobes whereby they take on themselves, as it were a vicarious office, supplanting the tubules in the cortical portion which are diseased, so that in every large kidney while we may not presume there are an increased number of Malpighian bodies we may say in some instances there is an increased working capacity in that kidney whereby it is enlarged, and this may occur not only congenitally but in connection with disease in the same kidney or in the opposite one.

Dr. CASSIUS D. WESCOTT reported a case of atrophy of the optic nerve in an infant.

In October, 1892, a baby boy one year old was brought to my office with the following history, which was obtained from the mother, and a letter from Dr. Marie Olson, of this city, who was looking after the child's general condition. The baby was born in Chicago of German parents; had been well and strong until he was six months old, when he suffered an attack of cerebral-meningitis followed by extension down the spine, which left him with right hemiplegia and with little or no sight. During the summer previous to my first seeing the patient he suffered an attack of cholera infantum and during that attack and for several weeks after it was taken to the Daily News Sanitarium on the lake shore, every day. The mother stated that the baby seemed to see nothing except strong light. He had been seen by a prominent opthalmologist of this city sometime before he was brought to me and had taken iodide of potassum to the point of iodidism, without apparent result. The doctor gave an unfavorable prognosis, in fact pronounced the case hopeless. Dr. Olsen's letter stated that the child was taking a mixture containing iodide of potassum, gr. i. and Fowler's solution m. i. three times a day.

On examination the child was found to be in good general con-

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dition and was well nourished. The external eyes were normal, the left one diverging most of the time. The ophthalmoscope revealed atrophy of the discs in both eyes, though it required a great deal of patient effort to see the discs at all in so young a child, almost constantly in motion. A passing glimpse of the discs, however, showed them to be blue-white. The eyes were not tender, and the tension was normal. To all ordinary tests that could be applied to so young a child, the baby could not distinguish form, the only evidence he gave of seeing anything was when the eyes were directed toward a lighted window or a flame in the dark room. He did not seem to realize the presence of the ophthalmoscope when I was making the examination; did not notice any bright object, like a watch held before him, and all sudden movements made before him were without effect; his expression was a blank stare, the picture of absolute blindness.

I of course gave a guarded prognosis, but prescribed strychnia sulphate, one three-hundredth of a grain in each dose, to be taken three times a day, adding it to the medicine he was already taking, and this dose was gradually increased until he was given one one-hundredth of a grain three times a day and began to show evidences of the toxic effect of the drug. I calculated roughly that one one-hundredth of a grain of strychnia for a baby a year old would be equivalent to one-twelfth of a grain to an average adult. The strychnia was not stopped until the child became excessively sensitive to every noise. The mother said that on the slamming of a door or knocking on the table the child would put his hands to his ears and would jump, showing the hyperesthesia of the auditory nerve, but she did not notice spasm of the legs or other members. Within a month or six weeks the mother said she was sure the child was seeing better, and now six months after beginning treatment, the child plays with his toys on the floor like other children, and will notice the finest white thread used in sewing and will reach for it and pick it up.

While the case is not by any means without parallel, it seems to me to be of sufficient interest to merit report. This patient is the youngest in whom I have made a positive diagnosis of atrophy of the optic nerve, and it is the most marked improvement in sight that I have noticed in any case of atrophy.

Nettleship has reported, in the proceedings of the Ophthalmological Society of Great Britain, some cases of recovery from "amaurosis" in young children, without making a positive diagnosis as to the cause of blindness. Noyes says he has seen improvement

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follow in a number of cases of atrophy of the nerve in young persons, which was due to meningitis. This child was observed by an intelligent physician, the diagnosis of meningitis I think was without question and the condition of the discs was unmistakable. It was no doubt a case of interstitial atrophy, a condition of the nerve in which the connective tissue elements are increased from inflammation an extension probably from the meningial trouble. It is these cases of atrophy of the nerve in which we can expect improvement rather than in cases of parenchymatous atrophy such as we get in spinal cord disease where we find the gray atrophy, which is easily distinguished from cases like this.

To Nagel we should give the credit of first, and enthusiastically, recommending the strychnia treatment in this class of cases, and I think in this case we should give the credit of the improvement to strychnia, because the other remedies, the iodide of potassum and arsenic had been used for a long time without any noticeable improvement in the child's condition, I simply continued them, not because I expected any help from those drugs, but not to interfere with the prescription the doctor had made, merely adding strychnia to it.

Adjourned.

THE COOK COUNTY HOSPITAL CLINICAL SOCIETY.

Regular Meeting, April 5, 1893.

Dr. B. L. EASTMAN acting chief of internes in the chair.

Dr. LUDVIG HEKTOEN read a paper on Ulcerative Endocarditis, reporting eight cases, occurring in Cook County Hospital with exhibition of specimens. The following is a summary of the report:

"Of these eight cases the instance of tricuspid endocarditis appears to be an example of primary or crypto-genetic disease of the healthy tricuspid valves. There are two cases of the comparatively not so very infrequent engraftment of an acute ulcerative process upon the sclerotic valves of chronic heart disease without the known presence of any wound, septic process, or acute infectious disease. There are two cases connected with external lesions through which the infection might have occurred. In one the probable atrium was a superficial burn, but this case was further complicated by a sero-fibrinous pericarditis whose exact relation to the malignant endocarditis cannot at this time be established; in the second case it is quite clear that a streptococcus infection

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took place from a gangrenous foot causing a pulmonary abscess, acute aortic ulceration, and a suppurative, anemic renal infarct.

The three remaining cases are associated with acute diseases elsewhere in the body; one with a double fibrinous pneumonia, one with an acute leptomeningitis, the infection coming from an unknown source; the third case of this kind occurred in a man who died with the diagnosis of empyema following lobar pneumonia. All the cases occurred in men belonging to the laboring class, the youngest being 24, the oldest 50 years of age.

There was one instance of tricuspid and one of mitral disease; in the other six cases the aortic valves were primarily involved, and in three the mural endocardium showed areas of necrosis and ulceration which in one instance led to the production of an aneurism of the membranous part of the ventricular septum and rupture into the right auricle; in one case the aorta was attacked by the extension of the process from one of the valves. It is also of interest to note the spot of vegetation or necrosis in the center of the ventricular surface of the anterior nietral flap where it would come in contact with the vegetating mass or aneurismal bulging of the aortic valves; this spot consequently appears to be due to contact infection and was present in three of the six instances of aortic disease.

In three of the aortic cases the valves were the seat of a chronic endocarditis, upon which the acute process implanted itself; in one of these cases the bacteriologic examination failed to reveal any bacteria and it would seem that the inflammatory and necrotic changes in the endocardium had fallen into temporary or permanent quiet, suggesting the probability of recovery from the acute symptoms. This corresponds well with the clinical facts in the case which show that the patient died from the effects of an uncompensated valvular lesion, rather than from an acute infection.

In only one of these instances of acute destructive changes developing upon sclerotic valves was a history of previous attack of rheumatic fever obtained to which the chronic endocarditis could be traced. Otherwise the anatomical and histological changes presented by these specimens are so typical and characteristic of ulcerative endocarditis as to require little elucidation; they show vegetative and necrotic changes in profusion with the production of typical valvular eneurisms and subsequent rupture.

It is quite noticeable that in only four of the cases were there evidences of embolism and infarcts and here the embolic changes were quite limited; as a rule the showers of infected emboli from

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the endocardial vegetations and ulcerations constitute a striking feature in the clinical as well as the anatomical manifestations of this form of endocarditis."

Dr. J. B. HERRICK: "It is extremely difficult to draw the line between benign and malignant endocarditis. The symptoms of acute ulcerative endocarditis often simulate those of typhoid fever. Always examine the heart in obscure cases. These are usually irregular, erratic chills in endocarditis, no periodicity. Symptoms of infarcts in the lung, brain and kidney may be present. It is said that an infarct can be suspected in the spleen by detecting one tender spot in the enlarged organ. There are cutaneous emboli which resemble spots of typhoid fever; but in the center there is an area of anemia, while the color of the surrounding reddened area does not disappear on pressure. There is rapid respiration and rapid pulse.

It is hard to detect murmurs often; the murmur frequently changes from day to day. There is usually some infection-atrium. The majority of cases occur in women from puerperal causes.

Dr. HEKTOEN: A large percentage of cases occur in which acute ulcerative endocarditis has been engrafted upon a chronic endocarditis. Eliminating these cases there are nearly as many occurring in the right as in the left side of the heart.

On motion, a vote of thanks was extended to Dr. Hektoen.

Dr. E. R. LE COUNT read the histories of two cases of monocular diplopia, and exhibited two interesting cases with heart murmurs.

Adjourned.

A. F. SIPPY, }
R. B. OLESON, } Secretaries.

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CHICAGO OPHTHALMOLOGICAL AND OTOLOGICAL SOCIETY.

Regular Meeting, April 11, 1893, at 103 Adams St.

Dr. Holmes in chair.

Present, Drs. Holmes, Wood, Williams, Brown, Fisher, Colburn, Hotz, Gradle, Wilder and Pinckard.

Minutes of meeting of February 14 were read and approved. No meeting was held in March.

Dr. W. A. Mann was elected a member.

Dr. FISHER reported a case of supposed dislocation of lachrymal gland. Miss P., age 16, came to his clinic September 24, 1892, with interstitial keratitis. There was no syphilitic history. She was given one per cent solution atropeine and potas-iodide in increasing doses. December 22, 1892, a growth was first noticed in upper lid O. S. This interfered with the movements of the lid but could be replaced so that the eye appeared normal. A pressure bandage was applied and the potas. iodide continued. The tumor disappeared in eight weeks. Patient was seen only once during this period, at which time the tumor could be felt but not seen. Dr. Colburn saw the patient and believed the tumor to be a dislocated gland which adhered finally in its own fossa. He did not believe that gummata occurred in hereditary syphilis.

Dr. GRADLE said that he believed that gummata certainly occurred in hereditary syphilis. If it were a gumma there would be tenderness and injection.

Dr. HOTZ also saw the case. He said there was a small, movable tumor, easily pushed out of sight upward. It slipped down and to the outer side of the globe, and not under the conjunctiva as one would expect the gland to do. He said the eye was decidedly irritated. He had never seen anythig like it, but that gumma certainly appeared in hereditary syphilis in his opinion.

Dr. COLBURN reported the case of a man seventy-four years old, who, early in December, spent an afternoon seeing the city and became much exhausted in consequence. That night he had a sudden flash of light and the next morning he was blind in O. S. The eye became painful and flushed. He was treated with atropine by the family doctor. He then saw a specialist who diagnosed glaucoma and prescribed eserine. Dr. C. first saw him shortly after. Eye was very hard, pupil contracted, anterior chamber very deep, deposits on lens and post surface of cornea. Fundus could not be seen. Field normal. He had been doing badly under the eserine

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and Dr. C. began atropine again with improvement, but eye was never free from pain. Dr. C. did a sclerotomy six weeks ago. Now the symptoms are much decreased, tension is normal, can read large type, field normal, disc not cupped, fundus normal, vitreous clear, flocculi in anterior chamber have disappeared, no synechiar. Dr. C. had seen one other similar case in which atropine acted like magic.

Dr. GRADLE spoke of a mild and not very progressive form of choroiditis that he had noticed in several cases. He had seen it chiefly in young girls. These cases suffer from asthenopia yet there is not enough refractive trouble present to account for the symptoms. The v. is usually slightly subnormal even with the best glass. The eyes are a trifle sensitive to light.

The fundus, especially toward the periphery, presents a grained or "pepper and salt" appearance. These black and white specks are exceedingly small in most cases. In our case there was pain relieved only by antipyrin or constant current.

Dr. WOOD spoke of similar cases seen in Moorfields where glasses did not relieve symptoms. These were called cases of Tay's chororiditis.

Dr. HOTZ said that in all cases he had seen the nerve outlines were blurred.

Dr. HOTZ showed two specimens of concretions of the lower canaliculi. Microscopically they proved to be chalky concretions with no vegetable or fungi material.

Dr. COLBURN spoke of a similar concretion that he had removed in which he thought he found the leptothrix threads.

Dr. GRADLE had a man, forty-nine years old and a hard drinker who was struck blind about Jan. 1st, 1893. One month later v. fingers at two feet from eyes were myopic, but normal in appearances, blue field normal, but green and red were not recognized, v. improved slightly, in one eye $\frac{20}{60}$. There was anesthesia of the scalp extending over shoulder blades and thighs. Gave K. I. on chances and improved some. Peripheral v. became normal.

Dr. HOTZ spoke of a similar case where patient recovered. Called it retrobulbar neuritis.

Meeting adjourned by limitation.

C. P. PINCKARD, Secretary.

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Reviews.

PSYCHOPATHIA SEXUALIS. With Especial Reference to Contrary Sexual Instinct. A Medico-Legal Study. By DR. R. VON KRAFFT-EBING, Professor of Psychiatry and Neurology, Univerity of Vienna. Authorized Translation of the Seventh, Enlarged and Revised, German Edition. By CHARLES GILBERT CHADDOCK, M. D., Professor of Nervous and Mental Diseases, Marion-Sims College of Medicine, St. Louis; Octavo, 436 pages, Cloth, $3.00 net; Philadelphia: The F. A. Davis Company, Publishers.

There can be no question of the duty of physicians and jurists being informed on the perversions and vices of sexual life though contact with the unfortunate or vicious creatures thus endowed or afflicted, is fortunately in this country comparatively rare. The work by Krafft-Ebing treats the matter with the rare scientific thoroughness and justice that marks all his contributions to medicine, but it must be confessed that a perusal of his pages leaves one with lowered regard for the human kind and it is believed that the numerous illustrative cases detailed with painstaking and shocking detail could be abridged without damage to the value of the work. The chapter on the legal aspects of pathological sexuality is of great value and interest, clearly bringing out the distinction of those congenital perversions that require supervision and pity from the acquired vices which are rightly punishable. The fact that the most monstrous sexual acts have been committed by sane and responsible people is clearly admitted and that such acts are not per se to be considered evidence of psychopathy is emphatically maintained, the criterion being the demonstration of an underlying pathological perversion. It is needless to say that all literature and even history has been ransacked by the indefatigable author and that the resultant volume contains everything of value to a complete consideration of one of the darkest and most painful byways of human action. As a translation the work cannot be too highly praised. The task which presented so many inherent difficulties from the nature of the subject treated has been accomplished in a way rarely attained. The work is translated into pure, elegant English, instead of being merely an English equivalent, more or less literal and idiomatic as is the rule. On page thirty-three we find a statement attributed to Budge, that the genito-spinal center is "at the level of the fourth lumbar vertebra." Probably the fourth lumbar segment of the cord is meant, and a few trifling

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typographical errors have escaped the proof reader, especially in the Latin, which for some unnecessary reason is made to carry the most revolting descriptions. Anything capable of scientific discussion can properly be expressed in a living language and this bit of pedantic mock modesty is unworthy the author.

THE LAW OF PSYCHIC PHENOMENA. A WORKING HYPOTHESIS FOR THE SYSTEMATIC STUDY OF HYPNOTISM, SPIRITISM, MENTAL THERAPEUTICS etc. By THOMAS J. HUDSON. 410 pages. Chicago, A. C. McClurg & Co., 1893.

The fundamental principle upon which this book is based is the duality of mind, which the author is pleased to divide into what he for facility of description terms the objective and the subjective minds, the latter being open to suggestion and having its domain of influence over the functional life of the individual. This premise being accepted a very satisfactory working hypothesis is developed from which the explanation of peculiar mental conditions is evolved, and it must be admitted with more consistency than is elsewhere found. He belittles the influence of hypnotism as a means to criminal ends, claiming that the auto-suggestion of the individual is capable of counteracting the suggestion of the hypnotiser, and taking it for granted, apparently, that auto-suggestion is always in the direction of morality, which of course cannot be admitted.

His feeling in regard to mental therapeutics and hypnotism generally is that the Nancy school more fully explain the conditions than is done at LaSalpetriere. In no irreverent manner he approaches the miracles of Christ and explains them on similar grounds.

The chapters on phantasms of the dead and upon premature burial during suspended animation are the weakest portion of the book. Though it is difficult to accept the author's idea of mesmeric fluids which he brings into play in the consideration of spiritism, on the whole the book will well repay careful reading and thought and as a stimulator to more general consideration of the topics in question, it has a great value.

HISTORY OF THE LIFE OF D. HAYES AGNEW, M. D., L. L. D. By J. Howe Adams, M. D. With fourteen full-page portraits and other illustrations. 8 vo. 376 pages. Extra cloth; beveled edges, $2.50 net; half Morocco, gilt top, $3.50 net. Sold only by subscription. Philadelphia, F. A. Davis Co.

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Dr. Adams has every reason to be congratulated upon the results of his labor of love in writing the life history of Dr. Agnew. The atmosphere of affection and loyalty pervades the entire work, and the self-abnegation of the biographer is a most agreeable change from the ordinary biography which seem to have been written as much for the glorification of the biographer as for the one whose life is being recorded.

Dr. Adams has described Dr. Agnew not only as the physician, but as the man; and after reading the work no one can wonder why he was so universally beloved both by his brothers in the profession and by all who knew him.

A delightful feature of the biography is the way in which little things are brought in, not to the exclusion of the more important events, but so as to give the reader an insight into the life of not the great surgeon, but of the man Agnew. The spirit of the work cannot be better expressed than in the concluding sentence of the preface, which reads: "If any better conception, however shadowy and undecided, of the life, character and accomplishments of this grandest figure in American medicine, can be gained from reading this biography, the writer will feel that the labor of love was not done in vain."

MANUAL OF CHEMISTRY. A Guide to Lecture and Laboratory Work for Beginners in Chemistry, especially adapted for Students of Pharmacy and Medicine. By W. Simon, Ph. D., M. D., Professor of Chemistry and Toxicology in the College of Physicians and Surgeons, Baltimore, and Professor of Chemistry in the Maryland College of Pharmacy, 4th edition, 490 pages, with 44 wood cuts and 7 colored plates. Cloth, $3.25. Philadelphia: Lea, Brothers & Co., 1893.

A fourth edition of Dr. Simon's manual has been demanded within a year after the appearance of the third edition. Little is to be added to what was said in the review of the previous edition. The sixth and seventh sections of the book are of more direct value to the physician and medical student than the portions which deal with general chemistry, and these sections are clearly and concisely written, with many illustrations of chemical tests, accompanied by explicit definitions and explanations. The book is useful to the medical student, but it is difficult to understand wherein "especial adaptation" lies. It presents a most attractive appearance and reflects credit upon its makers.

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CHOLERA, ITS PROTEAN ASPECTS AND ITS MANAGEMENT, by Dr. G. Archie Stockwell, F. Z. S., Physicians' Leisure Library. In two volumes, paper 50c. 1893. George S. Davis, Detroit, Michigan.

Dr. Stockwell has written a very readable little book, not original, for the author disclaims originality. He considers that bacillar pathology is the greatest medical heresy of the age and hence he boldly denounces the believers in the microbic origin of cholera. Therein he is rash, but his book is readable if not scientific. The historical résumé of cholera is excellent; the pathological discussion appears to show grave prejudice and is weakened thereby. The author's treatment seems to be begun, continued and ended in chloranyodyne. The Elmer Lee and kindred methods of treatment do not appear to have been deemed worthy of mention. The appendices give historical sketches of European and Asiatic cholera, a concise chonology of cholera epidemics, published by the Tennessee Board of Health, and a condensation of Prof. von Pettenkofer's report on the Hamburg epidemic of last summer.

MEDICAL POCKET ATLASES. OBSTETRICS. Part I. Labor delineated in 98 Plates, by O. Schaeffer, M. D., Assistant at the University Frauen-Klinik in Munich. Translated and Published under the Direction of J. Clifton Edgar, M. D., Adjunct Professor of Obstetrics in the University of the City of New York, etc. Cloth, $1.80. New York: L. Hydel, 1893.

This obstetricians picture-book is instructive, in small compus, practical, and inexpensive. There are many large atlases, but the work under consideration marks a new departure in the line of illustrative explanation. Both normal and abnormal labors are graphically portrayed from start to finish. Tedious explanations are avoided, for the illustrations explain themselves. This atlas is very satisfactory and it is to be hoped that the others of the series which are promised by the publishers will be as useful as the atlas of obstetrics. If the illustrations were upon paper backed with canvas, as maps are mounted, the life of the book would be materially lengthened

ELEMENTS OF HUMAN PHYSIOLOGY. By Ernest H. Starling, M. D., Lond., M. R. C. P., Joint Lecturer on Physiology at Guy's Hospital, etc., with 100 illustrations. Cloth, 437 pages. $2.00. Philadelphia: P. Blakiston, Son & Co., 1892.

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Dr. Starling has compiled a compact compendium of physiology. The value of elementary works like this to advanced students is problematical, but the fashion is now for compends, and rapid roads to erudition. This book is more satisfactory than the average manual because the author has given explanations of the principles involved in physiological methods of investigation. The illustrations are hardly up to mark; otherwise the book is creditable to its author and publishers.

PAMPHLETS RECEIVED.

DIURECTION. By JAMES B. HERRICK, M. D., *Jour. Am. Ass'n.*, Mar. 11, 1893.

TRANSACTIONS OF THE COLLEGE OF PHYSICIANS OF PHILADELPHIA. Vol. xiv., Phil., 1892.

SOMETHING MORE ON THE TREATMENT OF HEMORRHOIDS, ETC. By THOMAS H. MANLEY, M. D.

GONORRHEA IN WOMEN. By FRED BYRON ROBINSON, M. D. *North Am. Pract.*, Nov., 1891.

DIET FOR THE SICK. By Miss E. HIBBARD and MRS. EMMA DRANT. Ill. Med. Jour. Co., Detroit, 25 cts.

MOVABLE KIDNEY WITH HYDRONEPHROIS. By D. W. GRAHAM, M. D. *Trans. Ill. State Med. Soc.*, 1892.

METHODS OF PRECISION IN THE INVESTIGATION OF DISORDERS OF DIGESTION. By J. H. KELLOGG, M. D.

A REMARKABLE CASE OF SKIN DISEASE. By J. FRANK, M. D. and W. C. SANFORD, M. D. *Am. Jour.*, Aug., 1891.

CONTRIBTION TO CEREBRAL SURGERY. By CHARLES MCBURNEY, M. D. and M. ALLEN STARR, M. D., *Am. Jour.*, Apr., 1893.

REPORT OF SEVEN CASES OF RUPTURE OF THE URINARY BLADDER. By JAMES B. HERRICK, M. D. *Med. News*, Feb. 25, 1893.

THE SYMPATHETIC NERVE AND ABDOMINAL BRAIN IN GYNECOLOGY. By F. BYRON ROBINSON, M. D. *North Am. Pract.*, Nov., 1892.

SHOULD MEDICINE AND DENTISTRY BECOME A FUNCTION OF THE STATE. By C. S. BACON, M. D. *Jour. Am. Med. Ass'n.*, Mar. 25, 1893.

THE THERAPEUTICAL VALUE OF MERCURIAL SALTS IN GENERAL SURGERY. BY THOMAS H. MANLEY, M. D *Times and Register*, June, 1892.

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News Items.

Dr. NORVAL H. PIERCE has moved his office to 723 The Field Building.

WILLIAM L. BAUM has removed his office to 910 Columbus Memorial Building.

THE PAN-AMERICAN MEDICAL CONGRESS receives by the Sundry Civil Bill $15,000.

ST. CLEMENT'S HOSPITAL, Philadelphia, is to be reorganized as a hospital for epileptics.

PARIS STREETS are to be named after Charles Robin, Vulpian, and Wurtz. New York has a Mott Street.

Dr. WILLIAM E. QUINE has moved his office to the Columbus Memorial Building. Hours, one to three P. M.

THE EMPEROR OF JAPAN has conferred on Professor S. Kitasato the decoration of the Third Order of Meiji.

SIR ANDREW CLARK has been reëlected President of the Royal College of Physicians of London for his sixth term.

THE WOMAN'S MEDICAL COLLEGE of Philadelphia has joined the ranks of the four year compulsory course schools.

Dr. CHARLES W. PURDY has removed his office to the Venetian Building and his residence to 57 E. Twentieth Street.

THE BRITISH MEDICAL ASSOCIATION holds its sixty-first annual meeting at Newcastle-on-Tyne, August 1, 2, 3, and 4, 1893.

Dr. JOHN A. ROBISON has opened a down town office in the Columbus Memorial Building, with hours from 1:30 to 3 P. M.

ERB, of Heidelberg, has been proposed as the successor of Kahler, deceased, in the chair of Clinical Medicine, at Vienna.

Drs. CHARLES GILMAN SMITH, James H. Etheridge, Lyman Ware and Edward B. Weston have removed to the Field building.

SIR JOSEPH LISTER has been elected a foreign member of the French Academy of Sciences, in the place of the late Richard Owen.

SAI SEI GAKU SHA, a private Japanese medical school, has established a monthly medical journal to be edited by the faculty of the school.

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Dr. BENJAMIN BALL, the distinguished clinical professor of mental diseases in the Paris Faculty of Medicine, died on February 23, after a long illness.

THE CHICAGO MEDICAL SOCIETY ommitted its regular meeting May first, on account of the holiday proceedings connected with the opening of the Fair.

ST. LOUIS HAS A MEDICAL LIBRARY which has been formally and officially installed in magnificent new quarters in the Board of Education building.

THE PRUSSIAN HOUSE OF LORDS before the Easter recess, refused to establish a Chair of Homeopathy in one of the Universities of Prussia.

AN AGNEW MEMORIAL WARD is to be erected at the University Hospital, Philadelphia. Dr. S. Weir Mitchell is chairman of the endowment fund committee.

Dr. WM. S. GATES has removed his office and residence from 2784 Commercial Street to 1279 Walcott Street, Ravenswood. Telephone, Lake View 55.

AN INSTITUTE FOR THE CLIMATIC TREATMENT OF TUBERCULOSIS has been erected in Wiener Wald, Austria, by Baron Rothschild, at an expense of $75,000.

THE CONGRESS OF MEDICO-CLIMATOLOGY will convene in the Art Building, Chicago, May 29, for one week. All physicians are cordially invited to be present.

LONG ISLAND COLLEGE HOSPITAL at a recent meeting of the regents unanimously elected Dr. A. J. C. Skene President of the college, and Dr. J. S. Wight, Dean of the faculties.

QUACKERY is defined by two Dutch pharmacists as the advertising on a large scale of any remedy, in other words the recommending of medicaments otherwise than by a physician.

THE AMERICAN MEDICAL EDITOR'S ASSOCIATION will hold its annual meeting at Milwaukee, June 5. The address will be delivered by Dr. Ernest Hart, editor of the British Medical Journal.

THE ILLINOIS STATE MEDICAL SOCIETY will hold its forty-third annual meeting at Chicago, May 16, 17 and 18. Registration will be as far as possible completed by mail to avoid confusion at the opening. There will be one evening session, and adjournment will probably take place at noon of the last day.

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THE WISCONSIN SUPREME COURT recently decided that a medical man, to be considered an expert, must be experienced in the branch of medical science on which he professes to testify.

THE CINCINNATI MEDICAL SOCIETIES have combined under the name of the Cincinnati Academy of Medicine. Now the Colleges propose to unite under the auspices of the Cincinnati University.

SUPPRESSION OF PROSTITUTION by law is to be attempted in Arkansas, a bill providing heavy penalties for the inmates of houses, and for negligent police officers, having been passed by the Senate.

Dr. ALFRED HARDY, the eminent dermatologist, who filled for many years honorably and acceptably the chair of Clinical Medicine in the Paris Medical Faculty, died recently at the age of eighty-two.

SECRETARY HOKE SMITH has given it out that he will only appoint physicians under thirty-five years of age to positions on pension examining boards, his purpose apparently being to give the younger men a lift.

KOCH has been the subject of a canard recently, in the lay press, to the effect that he had discovered a new cure for consumption by the inhalation of certain products. The story seems to have originated in France.

BARON ALBERT ROTHSCHILD, on the first anniversary of the death of his wife, gave half a million florins for the establishment of a cancer hospital in Vienna. It will be remembered that the Baroness died of cancer.

Dr. CARLOS MONTEZUMA, a full-blooded Indian, and a graduate of the University of Illinois and of the Chicago Medical College, has been appointed Government Surgeon at Nisgralein, on the Clovide Reservation, Washington.

THE PRACTITIONERS CLUB held its sixteenth banquet and fourth ladies' night in the German Press Club rooms, Schiller Building, with Dr. Daniel R. Brower in the chair. The subject for discussion was "The Doctor in Fiction."

STOMACH AND BOWEL WASHING IN CHOLERA has been used with great success by Dr. Jakov F. Shorr, of Kherson, who, however, does not give Dr. Elmer Lee credit for the method of treatment. Does his method antedate that of Dr. Lee?

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THE AMERICAN ASSOCIATION OF GENITO-URINARY SURGEONS will hold its seventh annual meeting at the Four Season's Hotel, Harrogate, Tenn., on June 20 and 21, next. Contributors should send the titles of their papers to the Secretary, Dr. J. A. Fordyce, 66 Park Avenue, New York.

THE CHICAGO POLYCLINIC at a recent meeting of the Faculty elected Dr. Otto L. Schmidt Professor of Internal Medicine; Dr. A. P. Ohlmacher Professor of Pathology and Bacteriology; and Dr. W. H. Wilder Professor of Diseases of the Eye.

THE WILLIE HIPP DISPENSARY has been opened at 4,453 State street by Dr. Harrison Hipp, in memory of his child Willie. He has associated with him a number of other eclectics. There is no doubt of the urgent and burning need of more free dispensaries.

MR. GLADSTONE, in the course of a recent speech remarked that many things had risen in value in late years, but added, "No one is aware of an increase of fees in the medical profession, and I am bound to say that there are none more nobly earned in the world."

MARINE HOSPITAL SERVICE EXAMINATIONS will be held at Washington, D. C., June 26th, for admission to the grade of assistant surgeon of the United States Marine Hospital Service. Full instructions can be obtained by applying to Surgeon General Walter C. Wyman at Chicago.

THE INTERNATIONAL MEDICAL CONGRESS through its American committee has secured materially reduced rates for delegates by the North German Lloyd, the Hamburg American Packet Co., and the Compagnie Générale Transatlantique. Five other lines decline to make any satisfactory arrangements.

Dr. ARTHUR R. REYNOLDS, Commissioner of Health of Chicago has reappointed Dr. Erasmus Garrott as Chief of Medical Inspectors and Prof. Walter S. Haines, Consulting Chemist for the Department of Health. These appointments must meet with the hearty endorsement of every physician.

HONORS TO VIRCHOW.—The visit of Professor Virchow to London, was simply a series of ovations, banquets, and receptions. Honors and attentions were showered upon the great man from all sides. The Croonian oration was a most brilliant address. Among other distinctions the honorary degree of D. C. L. was conferred upon Virchow by the University of Oxford, and that of Doctor of Science by the University of Cambridge.

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THE SUPREME COURT OF IOWA has sustained the State board of medical examiners in its position against the good standing of the Iowa Eclectic Medical College. The court decides that the law is constitutional under which the board is organized, and constitutes the first Supreme Court decision on this question.

THE ILLINOIS STATE BOARD OF HEALTH as now organized by the appointments of Governor Altgeld, is composed of Dr. William E. Quine, Dr. Sarah Hackett Stevenson, Dr. James B. McFatrich, of Chicago, and Dr. Julius Kohl of St. Clair county. Geo. Thilo, of Chicago, is appointed member and Secretary.

THE CHICAGO MEDICAL COLLEGE at a recent faculty meeting elected Dr. Henry Gradle, Professor of General Etiology and Hygiene; Dr. Archibald Church, Professor of Mental Diseases and Medical Jurisprudence; Dr. Samuel C. Plummer, Professor of Anatomy, and Dr. John Ridlon, Professor of Orthopedic Surgery.

Dr. ELMORE S. PETTYJOHN of this city, formerly connected with the Illinois Hospital for the Insane at Kankakee, has accepted the position of Superintendent at the Alma, Mich., Sanitarium, where no doubt his large experience and unquestioned ability will find ample opportunity and where many good wishes follow him.

Dr. A. H. ROLER from the Chicago Medical College has been appointed interne at the Chicago Marine Hospital; Dr. A. M. Workmeister at St. Elizabeth's Hospital; Dr. R. A. McClure and F. M. Baker at the Charity Hospital; Dr. W. T. Seymour at the Wesley Hospital; and Dr. J. R. Seavers at Michæl Reese Hospital.

THE LEGISLATURE OF SOUTH DAKOTA has enacted a law that physicians before receiving license from the State Board of Health to practice medicine, shall be graduates of a medical school, which requires at least three full courses of six months each in separate years. This law does not apply to physicians already graduated.

BACTERIA have been found by Dr. P. Seidler in many samples of mineral water. In Hunyadi Janos water to be found 4,460 and 6,615 to the cubic centimeter in two samples examined. In Friedrichshall water 5,600 and 5,795 respectively, and in Vichey water 13,400 and 14,300 in the two samples tasted. The bacteria develop rapidly through careless washing of bottles, corks, etc.

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INTERNES for the Presbyterian Hospital of this city were appointed by competitive examination from the students of Rush College last month in the following order: B. M. Linnell, Jno. B. Joiner, W. R. Parkes, R. W. Holmes and John L. Morris. The Chicago Medical College furnished as Internes to Mercy Hospital, J. DeSilva, J. W. Walker and H. S. Worthley.

THE PAN AMERICAN MEDICAL CONGRESS gives promise through the announcement of its numerous sections of being a very successful medical gathering. The section on Diseases of Children, under the presidency of William Pepper of Philadelphia, has arranged a strong programme. The meeting will be held Sept. 5th, 6th, and 7th at Washington, D. C.

Dr. EMERY & CROFTAN have opened a bacteriological institute at 640 W. Van Buren Street on a line parallel to that of similar institutes in European cities. Their special experience and training under the first bacteriologists of Europe enables them to serve the profession in this matter in the most reliable matter. They are also consulting chemists and analysts.

THE CICHAGO MEDICAL COLLEGE held its graduation exercises April 25th with a class of seventy-five. An address was made to the graduating class by Henry Wade Rogers, President of the Northwestern University, and on behalf of the class the valedictory was rendered by Dr. For-Line. In the evening a banquet to the alumni was given by the Faculty, at the Leland Hotel.

SURGERY IN LEPROSY—Dr. Beaven Rake, Superintendent of the Trinidad asylum for lepers, in an interesting article published by the St. Louis *Medical and Surgical Journal*, details his experiences during nine years of surgical operations upon lepers and concludes that operative interference in lepers is capable of affording much relief to the sufferings of this unfortunate class of patients.

THE CHICAGO PATHOLOGICAL SOCIETY at its annual meeting held May 9th elected the following officers for the ensuing year: President, Dr. J. M. Patton; Vice President, Dr. Harold N. Moyer; Secretary, Dr. John M. Dodson; Treasurer, Dr. R. N. Hall; Censors, Drs. William E. Clarke, Henry M. Lyman and I. N. Danforth. A vote of thanks was tendered the retiring officers for their efficient services during the past year.

FALSE TEETH, according to Judge Kelley, of St. Paul, do not belong to the dentist, nor does he have a lien upon them for debt when once they have been placed in the mouth of the patient and

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the dentist has parted with possession of them. The learned judge considers that when the teeth are so placed they become part and parcel of the possessor's body and presumably their forcible extraction would lay the dentist open to prosecution for mayhem.

Dr. ELY MCCLELLAN, Lieutenant-Colonel and Surgeon U. S. A. for many years stationed in Chicago, died May 8th, after a short illness, from uremia the result of acute nephritis. By President Grant he was at one time appointed special commissioner in regard to cholera and produced a work at that time which is still an authority in its field. He was a man of unusual attainments and of the most sympathetic and kindly nature. He leaves a wife and three grown children.

SURGEONS OF THE ILLINOIS NATIONAL GUARD, under Col. Senn, Surgeon General of the State, have organized themselves into a medical body similar to that existing in other States. Col. Senn was elected President, Capt. LaGrande, Vice President; and Capt. Bleigh, Secretary-Treasurer. The association will meet every four months to discuss methods for advancing military surgery. At their initial meeting Col. Senn held a reception for them at his house and a clinic for them at Rush Medical College, and in the evening gave them a dinner at the Auditorium.

GERMAN INFECTIOUS DISEASE LAWS. The draft of the bill in reference to reporting to the police any outbreak of infectious disease in any portion of the German empire, has been laid before the Federal Council. Failure to report infectious diseases within twenty-four hours entails a fine of ten to one hundred and fifty marks, or in default, imprisonment for seven days. Allowing the use of clothing or carriages before thorough infection is punishable with imprisonment not to exceed three years, and fine or imprisonment is the penalty of disobedience to the orders of the official doctor.

Dr. RICHARD DEWEY, recently superintendent of the Illinois State Hospital for the Insane, at Kankakee, in which position he made a most enviable record as an executive officer and psychiatrist, and from which position he was deposed for political reasons of the most flimsy character, has received the outspoken sympathy of many distinguished friends, among whom D. Hack Tuke, of London, writes to the *British Medical Journal* condemning such political action in strong terms and paying a high tribute to the

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ability of Dr. Dewey. The introduction of politics into medical appointments for State institutions or any other institutions cannot be sufficiently condemned.

THE CHICAGO COLLEGE OF PHYSICIANS AND SURGEONS held its class-day exercises April 12th. A bronze bust of the late Dr. A. Reeves Jackson was presented to the college and accepted through the President, Dr. C. W. Earle. In the evening the Alumni Association met at the Sherman House and elected as officers for the following year Dr. Weller Van Hook as President, Dr. S. D. Jones Vice President. At the banquet which was then served a paper was read by Dr. W. C. Caldwell, entitled, "The Gastro-Intestinal Tract," and remarks were made by a number of those present. On the 13th inst. graduation exercises were held at the Grand Opera House and a class of 87 received diplomas.

Dr. ARTHUR R. REYNOLDS has been appointed by Mayor Harrison Health Commissioner of Chicago upon strong professional endorsement and personal fitness. The appointment reflects credit upon the administration and we predict for the conduct of this important municipal department a record that shall be satisfactory to all. The new Health Commissioner recognizes very fully the importance of gaining and retaining the cordial support of the profession in carrying out any sanitary measures relating to infectious diseases, and professional interests and rights in the many delicate relations which necessarily result between public inspection and medical practitioners will be perfectly safe in his hands.

THE POST-GRADUATE MEDICAL SCHOOL of Chicago has moved into its new building, 819–821–823 West Harrison street. The basement and first floor of the building are reserved for school purposes, office, laboratories, operating and clinic rooms, dissecting rooms, etc. The upper part of the building is reserved for the hospital in connection with the school. When the building is completed there will be accommodation for seventy-five patients. The training school for nurses also has its quarters in the upper part of the building. The amphitheater is situated on the fifth floor and has seats for 200. Arrangements have been made for special courses of evening lectures during the summer. From May 15 to July 1 eighteen lectures will be given upon diseases of the eye, ear, nose and throat. July will be devoted to gynecology. In August twelve lectures will be delivered on surgery, and between September 1 and October 15, medicine, and skin gemto-urinary

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and children's diseases will be taken up. During August forty-eight morning lectures will be delivered upon diseases of the nervous system. All this work will be undertaken in connection with the regular work of the school.

CHICACO DRINKING WATER, according to the elaborate investigation of the *London Lancet*, which was made at a considerable cost and much trouble, and which practically amounts to nothing because the conclusions are all based upon Chemical Examinations, appears to that worthy organ, to be of an extremely good quality, comparing very favorably with the drinking water of London, which is taken from a rather uninviting little stream and supplied to the city, after filtration. The *New York Medical Record* with its customary soreheadedness adopts the report as the basis for a long editorial, showing very clearly a lack of appreciation of the situation, not to say an ignorance of it. The whole matter is summed up by the *Medical News* of Philadelphia, in these words: "To all criticism of the sanitary condition of Chicago, she may answer that her death rate is the one magnificent fact that shuts off all further discussion." In the latter weeks of April and the first weeks in May, New York presented a mortality of nearly thirty-three per one thousand. It cannot be claimed that Chicago water is all that could be desired and it is a matter of regret that all of our drinking water is not taken from the four mile tunnel and that all the sewage is not kept out of the lake. A very pertinent suggestion on the part of the *Lancet* cannot, however, be too strongly emphasized, which is that most of the water habitually drunk by the residents of Chicago is frightfully contaminated by impure ice, and the profession should do all they can to see that the water, if cooled by ice, is done so by other than the prevalent method of dumping the ice into the water.

Therapeutic Memoranda.

TOBACCO AN OXYTOCIC.

Tobacco is recommended as an oxytocic. The patient is directed to smoke from half a cigar to a cigar, and the results so far as the stimulation of uterine contractions is concerned is said to be satisfactory.

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VOMITING OF ANESTHESIA.

Vomiting during anesthesia may be arrested by compression of the phrenic nerve and vagus. Dr. Joos of the Cantonal Hospital at Winterthur, applies compression with the thumb on the left side, immediately above the sternal end of the clavicle. The hand is held flat on the thorax and the thumb is parallel with the clavicle. In Dr. Joos' experience the vomiting and hiccough forthwith cease. He also suggests that this treatment might be useful for the relief of seasickness.

ANESTHETIC MIXTURE.

Dr. M. M. Latta, of Goshen, Indiana, has used for twenty years a mixture of one drachm nitrite of amyl to a pound of chloroform. He claims for this mixture that it is particularly useful in case of weak heart and that it practically does away with the stage of excitement.

HEAT AND CHLOROFORM.

Decomposition of chloroform by the presence of light and heat from an open fire, not infrequently occurs and is disagreeable to operator, assistants, attendants and patient. Little has been known about the matter until the *Medical Press and Circular* in a recent issue called attention to the danger. In December last, in this city, during an operation for hemorrhoids, chloroform being the anesthetic employed, the operator anesthetizer and attendant began to cough violently; this was accompanied with irritation and watering of the eyes and dry and irritated throat, and a strong and pungent odor of free chlorine was noticed. The cough and discomfort in eyes and throat continued for a considerable time after leaving the operating room. It was supposed that the chloroform was impure, and the bottle with what remained of its contents was sent to the manufacturer, Dr. Squibb, of Brooklyn, who reported after analysis that it was entirely pure. It was then remembered that, as it was a cold day, an oil heating stove had been burning during the operation. This fact Dr. Squibb considered as the cause of the decomposition of the chloroform with evolution of free chlorine. The patient in this case suffered no discomfort whatever.

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Has been habitually underrated, owing to the fact that its time of action between the mouth and the stomach is necessarily brief, and to the supposition that such action ends with its entrance into the stomach.

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As a therapeutic agent has been warped out of place by conclusions based upon results obtained with ARTIFICIAL products, due to the interaction of the principal constituents of malt, and which do not represent its normal molecular arrangement.

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Is the first and only preparation of malt which presents these constituents in their normal condition, and it is clearly destined to be the means by which the status of germinated grain as a therapeutic agent will be established, and its true remedial mission defined, as all the results obtained with it are referrable to malt, and NOTHING ELSE. The fact that Forbes Diastase acts quite as promptly when exhibited two hours after the ingestion of food, as during incipient digestion, is conclusive proof that Ptyalin is NOT destroyed by the gastric juice, and probably not even held in abeyance during its passage with the food through the alimentary tract, and it is now possible to enter upon the work of estimating and measuring

THE RELATIVE ECONOMIC IMPORTANCE OF THE DIGESTIVE ENZYMES

by comparative experiments made with the

DEFINITE, CERTAIN, and MENSURABLE Diastasic Agent.

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Fig. I—Normal.

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Fig. IX—Chloroform Position.

Fig. XVII—Dorsal.

A few of the positions are: normal, reclining, semi reclining, horizontal, ¼ length, dorsal, Sim's, right or left lateral oblique, dorsal with hips raised, side tilt, raising or lowering, chloroform narcosis, rotating, etc.

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The Anodyne principle of Opium; the narcotic and convulsive elements being eliminated. Dose—One fld. drachm, represents ⅛ gr. morphia in anodyne principle.

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A combination of active principles of Stillingia, Helonias, Saxifraga, Menispermum and Aromatics. Each fld. dr. contains 5 grs. Iod. Potas. and 3 grs. Phos. Iron. Dose—One or two fld. drachms as indicated.

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THE
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JUNE, 1893.

Original Articles.

THE IMPORTANCE OF EARLY MASTOID OPERATIONS IN ACUTE SUPPURATIVE OTITIS.

By F. C. HOTZ, M. D.

PROFESSOR OF OPHTHALMOLOGY IN CHICAGO POLICLINIC, OCULIST AND AURIST TO ST. JOSEPH'S HOSPITAL.

Whatever may be the opinions of different aurists as to the method of treating mastoid inflammations, they all agree that a pus deposit in the mastoid cavity is a very unsafe, serious condition because there is no telling how or where it may end. It would therefore appear to be a foregone conclusion that such dangerous pus deposits should be removed in the quickest, safest and most thorough manner.

Nature has shown us the way by which this can be accomplished, in her efforts of breaking down the external wall of the mastoid cavity for the purpose of getting rid of the imprisoned pus. We can attain the same end much quicker than nature by chiseling an opening into the cells through the external plate of the mastoid bone. This artificial opening establishes a direct and free drainage; the cavity can be thoroughly cleansed by injections, and we can make sure that no pus is left in the cells to become inspissated and to form the focus of future disturbances.

The immediate effect of this operation is always very decided; the violent deep-seated pain the patient has been tortured with incessantly by day and night ceases almost instantly, a most welcome relief for which the patients always are very thankful. As

Read before the Illinois State Medical Society.

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soon as the pus is removed from the cells the inflammation rapidly subsides, and hence the operation effectually averts all dangerous complications which are known and liable to occur in the course of suppurative mastoiditis; and further more, we usually see after opening of the mastoid cells the inflammation in the tympanic cavity subside very quickly; the purulent discharge often ceases in a few days; the damaged membrana tympani is repaired, and the hearing power restored. Hence we may look upon the early mastoid operation as the speediest means of preserving the hearing of the affected ear and of restoring the patient to health.

And when we consider that this operation so pregnant with beneficial effects is a comparatively simple and very safe procedure; when [1]"the history of long lists of fatal results following mastoid disease not operated upon, on the one hand, and the steadily augmenting reports of successful results in operative cases, on the other, are growing arguments in favor of surgical treatment in the early stages of inflammation of the mastoid cells," it is difficult to understand the position of so many aurists who still hesitate to advise and to perform the operation as soon as they have good reason to believe there is pus in the mastoid cells.

In support and defense of their temporizing policy they point to the fact that in many cases of acute supp. otitis the mastoid symptoms subside and the patients get well without operation under the use of antiphlogistic measures and with the proper treatment of the tympanic cavity. This is quite true but a poor argument against the early operation. For in recommending the early opening of the mastoid cells we do not wish to be understood as if we insisted upon the operation at the very first appearance of pain, swelling, tenderness and other symptoms of mastoid inflammation. No, sir, we do not propose to employ the operation against the inflammation, but for the sole purpose of removing pus from the mastoid cells; hence the operation has no place in the beginning of mastoid inflammation, because at this early period there is no pus in the cells. In the initial stage of mastoid inflammation our efforts are directed toward subduing the inflammation in order to prevent, if possible, the accumulation of pus in the cells. In some instances the mastoid inflammation is relieved as soon as we enlarge by an incision a small perforation of the membrana tympani to facilitate the discharge of the purulent secretions from the tympanic cavity; or, if the tympanic cavity is thoroughly and repeatedly washed out with warm solutions of boric acid injected

[1]Clarence J. Blake in Transactions of the Am. Otol. Society, 1891.

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either through the eustachian catheter or through a fine, soft rubber tube introduced directly into the cavity through the perforated drumhead. In other instances the incipient mastoiditis is arrested by a good local blood-letting by leeches applied behind the ear, or by an incision through the swollen tissues down to the mastoid bone, (so called Wilde's incision,) and in other cases the continued use of warm fomentations over the mastoid region has the desired effect of arresting the inflammation.

But if these antiphlogistic efforts fail to subdue the inflammation within one week, if the symptoms continue in unabated violence, or return soon after an apparent remission, we may take it for granted that by this time the mastoid antrum is filled with pus and that this pus must be removed if the patient is to get well soon. To continue under these circumstances the nonoperative treatment means to subject the patient to a great deal of unnecessary suffering which the operation could prevent.

This reason alone is in my opinion a strong and sufficient indication for opening the mastoid cells at this comparatively early stage of the inflammation. For instance, at the beginning of October, of last year, a gentleman, thirty-eight years old, came to me with a very acute inflammation of the right ear, as the result of a rupture of the drumhead. Nine days previously he had put the end of a pen holder into the external meatus of his right ear, as people often do to relieve an itching sensation in the ear. While thus occupied he suddenly turned around in his chair and knocking his elbow against the back of the chair he pushed the penholder into the ear so far and with such force that its end was driven through the membrana tympani. He felt a violent pain, heard a loud cracking noise, and three days later had a profuse discharge from that ear.

I found a small longitudinal rupture of the drum-head behind the malleus, the membrane intensely red and a thin purulent secretion was oozing out freely. After the ear had been apparently doing well for three days, the patient had a paroxysm of severe pain behind the ear at night; there was just a slight indication of oedema and tenderness over a very small area of the mastoid region; and the discharge from the ear being again more profuse than it had been on the preceding days, I enlarged the perforation of the drum-head by an incision for free drainage and easier cleansing of the tympanic cavity. But in spite of treatment and warm fomentations the discharge continued very profusely; the oedema behind the ear increased; the skin became red and glistening; the

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tenderness very acute; the pain in the head almost constant and extending from the ear to the vertex and occiput; and the patient was wearing himself out for want of sleep.

It was plain the mastoid cavity was seriously involved and filled with pus. I was convinced that the opening of this cavity would at once put an end to the patient's suffering and therefore I urgently advised the operation. On Oct. 19, the mastoid operation was performed; at the depth of 8 millim. a small cavity was reached containing about one drachm of pus, and communicating with the tympanic cavity as shown by the fact that the boric solution injected into the mastoid cavity ran out of the external meatus.

The patient was at once free from headache and fever; in three days the purulent discharge from the middle ear had ceased completely; in one week the perforation of the drum-head was closed; in four weeks the mastoid wound was healed and normal hearing restored.

Before this patient gave his consent to the operation he consulted another specialist who, though he admitted there was undoubtedly pus in the mastoid, did not speak very encouragingly for an operation, but was rather in favor of putting off the operation because sometimes a case like this might still get well without operation, and because there was no sign of imminent danger to make the operation an urgent necessity. I opposed this advice and insisted upon the immediate operation because I believe in the old doctrine that an ounce of prevention is worth a pound of cure; because I regard it the worst practice to wait until dangerous symptoms arise and because I knew the operative evacuation of the mastoid cells would restore the patient's health much quicker than if the removal of pus was left to the slow efforts of nature.

But suppose under the continued antiphlogistic treatment the acute symptoms, like pain, tenderness and swelling, should sooner or later disappear, we have no assurance that at the same time the pus deposit has disappeared from the cells, or the suppuration in the cells has ceased; for this may continue without any outward signs, and pouring its product continuously into the tympanic cavity it greatly encourages the persistence of the otitis media, and often, I believe, is responsible for its tedious chronic course.

But there is another strong reason for opening the cells as soon as we are satisfied they contain pus. We can never tell in which direction the pus will work its way out of the mastoid cells. Though in the majority of cases it breaks down the external plate

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and appears on the outside of the bone, there are numerous instances on record in which the pus perforated the inner or upper wall and caused fatal meningitis, phlebitis, or thrombosis of the lateral sinus.

How extensively and rapidly the destructive work of the pus deposit may go on is shown in the following instance, in which I am convinced a fatal meningitis would have been the probable result if the operation had been deferred a few days longer. The patient, twenty-eight years of age, vigorous and free from constitutional disorders. Three days after an operation in the nose, severe pain in the left ear, followed within twenty-four hours by a copious discharge of sanguino-pus. But the pain in and about the ear continued, and at the end of the first week slight edema and great tenderness was noticed over the mastoid process. Leeches, hot water applications and frequent injections of boric acid into the tympanic cavity effected temporary relief; but after another week the headache and earache, swelling and tenderness over the mastoid returned and rapidly increased. Just three weeks from the outbreak of the supp. otitis and two weeks after the first manifestations of mastoid inflammation the cells were opened by the operation, and I was surprised to what extent the suppurative inflammation had carried its destructive work in the short time of two weeks. I found the whole mastoid bone turned into a large cavity filled with pus and granulations; the external wall was only four millimeters thick but firm, while the inner wall showed a large irregular defect of two centim in diameter, where the dura mater and the lateral sinus made up the boundary of this pus cavity. The patient made a very good recovery; after one week the ear ceased discharging; in four weeks he left the hospital and when he came back to the city two weeks later, the mastoid wound was closed by a firm solid cicatrix.

Many surgeons perform the mastoid operation on the installment plan, so to speak. Where leeches warm fomentations and other treatments have failed to give relief, they make a Wilde's incision, and wait a day or two for results; and when they are satisfied that this incision also failed to stay the inflammation, then they proceed to open the cells. In a paper published thirteen years ago[2] I pointed out the objections to this practice. There may be danger in delaying the final operation for twenty-four or forty-eight hours; and there is always the danger that the moral effect of the failure of one operation will shake the patient's faith in surgical treat-

[2] Arch. of Otology, June, 1880.

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ment so much that he may not submit to a second operation when this is urgently demanded.

It is, therefore, very desirable that we come at once to a definite decision as to whether the mastoid bone should be perforated or whether we may expect any lasting benefit from the simple incision of the periosteum. I showed that our decision must largely be governed by the condition of the periosteum; for pain, swelling and tenderness may be caused by external or internal mastoid inflammation; and when these symptoms have lasted one or two weeks we can expect a favorable result from the periosteal incision only in the case of genuine periostitis, while it has no effect upon the suppuration in the cells at this late period. I, therefore, insisted that when the symptoms of mastoid inflammation occurring in the course of acute suppurative otitis are not speedily relieved by antiphlogistic measures we should never make a Wilde's incision without being prepared to go further. If the incision discloses unmistakable evidence of primary periostitis pure and simple, we may abstain from any further operative procedure; but if no such evidence is found we should at once proceed to the opening of the mastoid cells. And this should also be done if in the presence of periosteal disturbance we find a small circumscribed area of the bone discolored or softened; for these are signs of bone disintegration proceeding from the cells outward; and the periostitis found under these circumstances must be regarded as a secondary inflammation.

And if after the most searching examination I had any doubt as to whether or not the cells should be opened, I should always give the patient the benefit of the doubt and decide in favor of the opening, because a persistent primary periostitis is the exception; suppuration of the antrum the rule among the complications of a ac. supp. otitis. In ninety-nine cases out of one hundred we are sure to find the pus deposit we are operating for, and in the one exception in which we may perhaps find none, the operation will prove hardly any more serious than the perioteal incision alone.

I have pronounced the opening of the mastoid cells a very safe surgical procedure. I have not lost one case out of thirty-six in which this operation was performed for suppuration in the cells occurring in the course of acute otitis media. But I must qualify this statement by adding, if the operation is done with the chisel. The superiority of the chisel over the drill is now so generally conceded, that I need not take up your time with arguing this point. Besides, I did not intend in this paper to discuss the technique of

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the mastoid operation, but to point out its great value in the early period of mastoid inflammation, and to show that there is no valid reason why an acute pus deposit in the mastoid bone should not be treated like an acute abscess in any other part of the human body according to that sound old surgical principle to open an abscess and to remove the pus as early as possible.

VENETIAN BUILDING.

THE PRESENT STATUS OF THE ETIOLOGY OF WHOOPING COUGH AND ITS TREATMENT WITH BROMOFORM.

BY DR. CHARLES WARRINGTON EARLE, CHICAGO.

Nearly all authors agree that pertussis is a contagious bronchial catarrh. Concerning its contagiousness I am not aware that there is at this time any difference of opinion. Its etiology, however, is not fully determined, and the treatment comprises about every drug from cochineal to antipyrine. In my lecture on pertussis I find a translation from the German, made for me by Dr. Marie J. Mergler, some seventeen years ago, as follows: It will be interesting in the matter of comparison.

"Whooping cough is a catarrh limited to certain portions of the respiratory tract produced by the invasion of lower organisms. The peculiar cough is a reflex act, produced by the irritation of the ends of the superior laryngeal nerve. Letzerich discovered in the sputum of patients suffering with pertussis a peculiar germ; small elliptical reddish-brown spores, some of which are budding. These vegetable parasites are particularly numerous during the convulsive stage. They cover the epiglottis, larynx, and trachea, and sometimes invade the alveoli and produce catarrhal inflammation. Sputum from a pertussic patient conveyed to the pharynx of a rabbit will, in six to eight days, produce the peculiar cough."

This translation was made just when the Germans were beginning to study the bacteriological origin of disease.

That we have not made any remarkable progress in investigating the cause of the disease under consideration will be seen by the following abstracts from current German and French pediatrical literature:

"In regard to the etiological factor of pertussis we know as good as nothing. It is very probable that the contagion reaches

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the respiratory mucous membrane with the inspired air and here produces its effect, and without doubt bacteria will be described as the cause of the disease."[1]

Pertussis is a specific infectious disease of a definite part of the respiratory mucous membrane, which is characterized by peculiar spasmodic attacks of coughing.

This last follows an irritation of the sensitive ends of the superior laryngeal nerve, due to an infection. Or, according to another author (Michael) due to an irritation of the sensitive trigeminus in the nasal mucous membrane. The mechanism of the attack of coughing is not yet very clear.[2]

The disease is directly contagious, occurs in epidemics and attacks principally children, especially girls (Unruh), and only seldom grown persons. Generally children are attacked up to four years of age; in the later years of childhood its frequency decreases.

Schools, kindergardens and cribs are the essential mediums for spreading the disease. It is doubtful if a third healthy person can become a carrier of the disease.

The time of year and climate have no influence in the origin and extension of the disease, while frequently an epidemic of pertussis follows an epidemic of measles, or more rarely, precedes one.

The nature of the contagion has defied much careful bacteriological investigation, and is unknown to this time.[3]

Pertussis is an epidemic, contagious bronchial catarrh with peculiar convulsive coughing attacks.

While there was a disposition for a long time to consider the essence of the disease entirely or mostly as a nervous trouble, Hagenbach was the first who dared to state that it was a catarrh of certain portions of the respiratory passages, and generated by bacteria, through an irritation of the end fibers of the superior laryngeal nerve.[4]

In the French I find the following: "We generally observe whooping cough under form of epidemics, and it reigns quite often the same time as measles. Although it will appear at all seasons, it is much more frequent in autumn and in springtime, and often appears with the epidemic of measles. Children are attacked at

[1] Vorlesungen uber Kinderkrankheiten. 1890. Dr. E. Henoch, page 430.
[2] Dr. Ludwig Unger, Lehrbuch der Kinderkrankheiten, 1890, page 417.
[3] Lehrbuch der Kinderkrankheiten, Prof. Alfred Vogel, 1890, page 275.
[4] Baginsky.

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all ages, but more often from two to seven years. The new born are not completely protected from the disease, and some cases are cited in the first day of existence, with nursing children, when the mother herself was at the time of confinement affected with the whooping cough. No age is spared, however, during childhood, though it is less common after the tenth year. Girls are more frequently attacked than boys. I have already said that relapses are exceptional, but they should not be regarded as impossible.

At the end of the last century whooping cough was considered a catarrh, later a disease of the nervous system, and still more recently the attempt has been made to combine both opinions. At last the doctrine of contagion comes, and it is affirmed by nearly all physicians to-day that this disease is infectious and transmissible. It is probably transmissible by virtue of a local influence which acts only upon certain limited portions of the mucous membrane of the respiratory tract, and proceeds from the expulsion or exhalation, and of the diffusion of a fixed principle upon different areas.[5]

Prof. J. Lewis Smith, in his last edition (September, 1890), gives a much better resumé of bacteriological studies with a view of determining the cause of the disease than any of the preceding authorities. He gives Letzerich credit for his discoveries, already quoted in this paper, cites the results of Burger, of Bonn (1884), who says that microörganisms are visible, and are found in no other expectoration, and gives in full the conclusion of a Russian observer, as follows:

1. The bacillus of Prof. Afanasieff is specific.

2. Bacilli are found in the sputa about the fourth day of the disease, in some cases earlier.

3. They multiply in the tissues of the body, and as they increase the severity of the disease increases.

4. The bacillus disappears before the entire cessation of the attack of coughing, or when the paroxysms are reduced to two or four daily.

5. With complications—such for example as a catarrhal pneumonia—there is a great increase in the number of the whooping cough bacilli found in the sputum.

6. A pneumonia developing under these circumstances differs from the ordinary attacks of catarrhal pneumonia.

7. The bacillus of whooping cough is of value, not only in etiology and diagnosis, but in the prognosis of the disease.

[5] Elements of Pathology and Clinical Diseases of Infants. 1890.

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During late years the following remedies have been particularly prescribed: Carbolic acid, cocaine, and antipyrine and guaiac. I have tried them all with apparent benefit; particularly carbolic acid with iodine by fumigation, and quinine by spraying.

My attention was first called to the drug bromoform in an abstract from some foreign journal. It was mentioned favorably, and while I was obtaining the drug from the East, the article by Dr. Fischer *Medical Record*, Sept. 5, 1890, was published.

He had used it in fifty-one cases, and says that in his opinion it is the best known remedy when properly applied. My own experience covers about fifty cases.

In order to ascertain what effect this drug has, or any other treatment which I am using, I obtain the number of paroxysms of coughing which are taking place daily. The mother or nurse is directed to make a pin-hole in a card, or in some other convenient way accurately determine the number of seizures during twelve or twenty-four hours.

Many years ago the eminent clinician Trosseau remarked that forty paroxysms in twenty-four hours made the disease a serious one; and I have found in my practice that my estimate of the severity of a case, and whether it was improving or not under any given treatment, has been best ascertained by this method of noting the number of paroxysms each day.

It will be a useless waste of time for me to narrate each individual case, but in the main I will say that without exception the number of paroxysms were diminished very greatly within three days after the commencement of the bromoform treatment. In two cases where I administered it, the mother remarked that the action of the remedy was surprising, the number of paroxysms being reduced from twenty-eight daily to five or six in the course of two or three days.

In another case, which had progressed unfavorably, notwithstanding all the treatment which I could suggest, with the exception of fumigating with carbolic acid and tincture of iodine, the child having become very much reduced in flesh and remaining in a semi-comatose condition during the entire day, there was marked improvement within a very short time after the administration of this remedy. In two cases where I administered what I now believe to be a little too large a dose, dizziness was experienced, vomiting ensued, and the treatment was abandoned by the mother; the children took the remedy only about one day, and yet the paroxysms were brought from thirty down to ten. In another case

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which had convalesced some two weeks previous, I was recalled finding all the symptoms of suffocative bronchitis, with some new indications of the whooping cough. This child was placed upon a mixed treatment, the ordinary remedies for the bronchitis, with a proper dose of the bromoform four times a day. It improved wonderfully, and required only three or four visits before it was discharged convalescent.

In a family who had just returned from Europe bringing the remains of one child who had died from measles and whooping cough, the baby ten months of age had twenty-eight paroxysms the day I began the treatment; it was given half a drop four times a day, after three days the paroxysms have been reduced, and have continued at six each day. The drug is a light colored, volatile, rather pungent smelling substance, and is made by the action of alcohol on bromine in the presence of some alkali. It should be given in doses of from one-half drop to a child one year of age, to two or three drops to children of five or six, suspended in some mucilaginous vehicle. Some observers, however, prefer to give it in water thoroughly shaking the mixture before using. Its action it appears to me, is somewhat similar to that of belladonna. In my judgment it controls very largely the nervous element in this disease. It has not, as far as my experience goes, any germicide properties. I have not had the opportunity of commencing its administration at the commencement of the whooping cough and cannot speak from experience as to whether or not it will lessen the length of the disease. I am sure that it is useful in the second stage, diminishing the number of paroxysms and in this way bringing the disease under control, which to say the least, excites our solicitation and makes us fearful of complications where the number of paroxysms are from twenty to thirty each day. Previous to the time that my attention was called to bromoform I had relied almost entirely upon fumigations, using tincture of iodine and carbolic acid. I am satisfied that this plan of treatment is of more benefit than any other which I have tried. With the bromoform to combat the neurotic tendency and the fumigations of carbolic acid and tincture of iodine to destroy the microörganisms, it appears to me that we have a treatment which promises more than any other combinations of remedies. It is quite probable, it seems to me, that the action of bromoform and belladonna may be somewhat similar; but as between the two remedies the bromoform has given me the better results.

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My present plan of treatment will be as follows: I consider that whooping cough is without doubt a contagious disease, and am surprised that the German authorities have considered it worth while to doubt for a moment this question. The weight of authority certainly agrees that it is a bacterial disease, and that certain parts of the nervous system are also involved. I would prescribe then, some sort of fumigation of carbolic acid and iodine tincture for a part of the time during the twenty-four hours, so that the atmosphere in which the child lives should be pretty thoroughly impregnated with these agents; I would then administer, for its influence upon local nerve irritation, the bromoform in doses which experience teaches us are suited for each person. It is possibly an open question whether iodine and carbolic acid in the strength we give it by this process really destroys any germs whatever, but from a clinical standpoint the combination seems to be beneficial.

So many different remedies have been used in this disease, and benefits claimed for so many drugs, that it appears to me the time has not yet arrived when we can say definitely that this drug is superior to all others; but from my experience, and that of others, during the last two years, it appears to me that we should give it a trial, and that at the present time it promises better results than any other treatment hitherto suggested. The bromoform treatment has been quite extensively used during the past two years and in the main with good results.

Dr. Burton Fanning, has used it in thirty cases with uniformly gratifying results. In his experience the dosage was as follows: Mi. up to three years old, Mii. up to six years. Commence with three times a day; the doses may be gradually increased if necessary.

Dr. T. J. Duncan, reports five cases treated with the following results: The paroxysms diminish in number and in severity, and the nasal and other forms of hemorrhage disappear. The remedies undoubtedly shorten the duration of the attack.

Stepp, of Nuremberg, who first advocated the use of bromoform, treated one hundred children affected in various degrees with pertussis, and ranging in age from six months to seven years, without a single instance of failure. A cure was usually effected within from two to four weeks. The paroxysms diminishing in number and severity in the course of five days, falling in some cases from thirty or forty to ten, and the cough losing its paroxysmal character.

Lowenthal, in consequence of such favorable results employed

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the drug in one hundred cases, and obtained the most gratifying results. Where vomiting had occurred, it was the first symptom to disappear.

Dr. Neuman has also obtained favorable results in twenty-five cases, and Dr. Schippers, in a trial of this drug in his polyclinic and in private practice, had, up to April 1, 1890, treated two hundred and fifty cases.

His summary of results expresses a large degree of satisfaction as to the efficacy of the remedy.

Dr. E. J. Mellish, formerly of the Cook County Hospital, and while in practice at Ishpeming, Mich., had a very extensive experience in whooping cough, and has written an article which is published in the RECORDER of January 1892. He presents many statistics in regard to the prevalence and mortality of this disease and gives his results with bromoform. It is exceedingly gratifying and the article a most valuable one on this subject.

Not all, however, who have used the remedy are pleased with its action or manner of preparation. Prof. Bedford, of New York, states that he has recently had his attention brought to a formula which is very faulty, in that the drug is precipitated, and forms a globule at the bottom of the bottle, so that the patient receives nearly all the bromoform at the last dose, with unfortunate results. Syrup or water should not be added to the prescription, but glycerine may be used in any quantity without precipitation.

Ullman, after long and careful study in regard to the use of bromoform and sulphurous acid in the treatment of whooping cough concludes that these remedies do not do any more good than any of the numerous ones hitherto suggested. He thinks that the length of the disease is shortened very slightly, that recurrences take place, and that complications also follow, the same as through other treatment. On the whole, he does not think particularly well of the remedy.

While bromoform has been recommended in the strongest terms, there are cases on record of poisoning from its use.

Dr. Nauwelaers reports a case where a child one year and three months old, was poisoned by two drops of a solution of seven drachms to one-fourth of bromoform, dissolved in an equal amount of alcohol, and given eight times daily. The case proved fatal.

Dr. E. Sachs reports a second case, of a child four years old, where three drops of bromoform were ordered three times a day. In the absence of the mother the child obtained the bottle and drank the contents remaining, about fifteen minums of bromoform.

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When seen by Dr. Sachs, it was seemingly lifeless, with fixed dilated pupils and imperceptible pulse. Injections of ether, and application of a stream of cold water to chest and back, soon caused the return of consciousness, and the little patient recovered.

Notwithstanding the above adverse report, I am still using bromoform with good results:

I make it up in an emulsion somewhat after the following:

℞ Bromoform gtt. (Merck's).....viii.
Tr. Opiti camph.....ʒ i.
Syrup Acacia.....ʒ iv.
Aq. Anisi.....
Aq. Laurocerasii.....q. s. ad. ʒ i.

M. Shake the bottle. S. From one-half to one teaspoonful, 4 t. d. to a child one year of age.

This dose may be gradually and carefully increased until a child one year of age is getting from two to three drops four times daily.

THE IMPORTANCE OF EARLY MECHANICAL TREATMENT IN HIP JOINT DISEASE IN YOUNG CHILDREN, WITH A METHOD OF TREATMENT.

By A. E. HOADLEY, M. D.

PROFESSOR OF ORTHOPEDIC SURGERY AND SURGICAL DISEASES OF JOINTS, CHICAGO POLICLINIC; AND PROFESSOR OF ORTHOPEDIC SURGERY AND SURGICAL DISEASES OF JOINTS, AND CLINICAL SURGERY, COLLEGE OF PHYSICIANS AND SURGEONS, CHICAGO.

It is a well recognized fact that in all surgical conditions, as well as medical, that the sooner judicious treatment is commenced the more likely are the results to be satisfactory. There is no reason for supposing that hip disease is any exception to the rule, and still it does seem to me that the early stages of this very serious malady do not get the consideration from writers and teachers that their importance would justify. A careful inquiry into the early history of all of the advanced cases of hip disease that have come under my observation in the past five years, shows that in every case a considerable period of time elapsed between the first symptoms or the diagnosis of the disease, and the commencement of the mechanical treatment. This time varies greatly, ranging from a week or two to many months, and in no case have I found

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that mechanical treatment was instituted until it was demanded for the relief of pain or when the patient was practically helpless. To be sure I have not seen the cases where treatment was commenced early and thoroughly carried out, for they probably all recovered. This last proposition is my conviction for I believe that the prognosis in hip joint disease is very favorable indeed when subjected to very early mechanical treatment. My own favorable results in the early treatment of this class of cases has led me to produce this paper for the purpose of urging the necessity of early treatment and also to suggest a means.

It is a fact to be deplored that the first weeks and even months of this disease are treated with a degree of indifference that would lead one to believe that it was an established rule not to resort to mechanical means until it was absolutely necessary. I am speaking now with the knowledge that the great majority of all cases of hip disease in the early stages are under the care of the practitioner and not the surgeon or specialist. Everything in a general way is carefully attended to. General remedies are judiciously administered. Embrocations and counterirritations are skillfully manipulated with the never-failing admonition that "if you don't keep still," or, "if you don't keep the child still I will surely have to put on extension." This last order is quite useless. The older patient will, while keeping still, manage to move about enough to keep up a slight irritation sufficient to make the joint sensitive and induce more or less pain. The mother will declare for the younger child, that it is impossible to keep it still. She does the best she can which means nothing. The disease, meantime, goes steadily on, until both patients, are willing to keep still of their own choice.

It now becomes apparent that something more radical in the way of treatment must be adopted. It now becomes a surgical case, and it is at this stage of the disease, which is usually denominated the second stage, that the surgeon sees the patient for the first time. It is from this class of cases that the statistics of hip joint diseases are compiled and the summary for the prognosis made. Perhaps it will be well to point out here the anatomical peculiarities which makes it possible to have a distinctive disease of this joint, and also to show how it is possible for this joint to be irreparably damaged without giving much sign, and so will endeavor to better emphasize the importance of early mechanical treatment. We will also show that these anatomical peculiarities predispose to disease as well as to destruction of the

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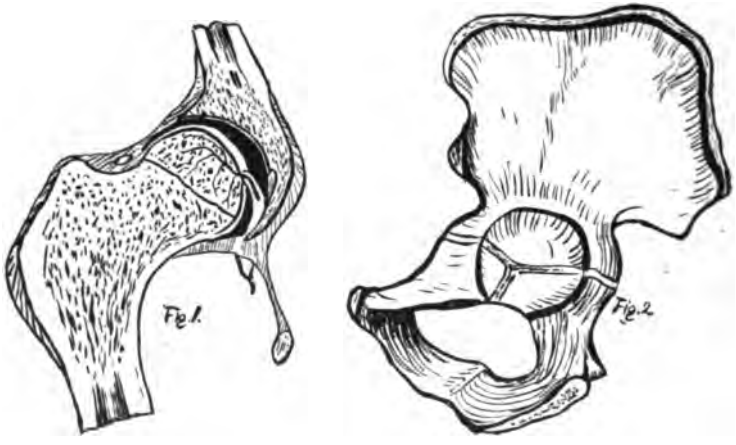
joint and show how it is that the fate of the joint as to its future conditions, is usually settled before fixation and rest have been established as a means of treatment.

By referring to the illustration, which has been prepared for the purpose of conveying an idea of relations, without any pretense to anatomical accuracy, we see first, that the capsule of the joint is attached above to the inominate bone around the acetabulum just outside of the cotyloid ligament and below to the neck of the femur below the head, so that the head of the bone and part of the neck are entirely within the capsule.

Into the center of the head of the bone is inserted the round ligament or ligamentum teres, through which runs a small artery, the sole supply of that part of the head that constitutes the epiphysis. It is a very important fact that the under portion of the head



of the bone is formed by an extension into it of the neck, and that the under margin of the epiphysial cartilage is in contact with the articular cartilage.

In figure 2 we see that the three pieces of bone of which the inominate is composed come together in the bottom of the acetabulum, and in the young these three pieces are separated by a plate of epiphysial cartilage, the Y-shaped piece of cartilage of the acetabulum. The first peculiarity of this joint is that the epiphysial line of the head traverses the bone entirely within the joint, which is not the case with any other joint in the body and that it must consequently derive its nutriment from the one single vessel that passes to the epiphysis through the round ligament, while all other epiphyses derive their nutriment from many minute vessels

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which penetrate at the margins. From this fact it is believed that a slight disease existing in the epiphysis for some time will occasion the enlargement of the small vessel which supplies it, and also supplies the round ligament, and the consequent hypernutrition of the round ligament dependent upon this enlargement causes softening and finally destruction of the ligament together with the artery. In this way the epiphysis is deprived of its only means of support. It soon separates from the living bone and lies loose in the joint as a sequestrum, a condition that cannot occur in any other joint.

The second noteworthy peculiarity of the hip is that the epiphysial cartilage at its lower margin is in contact with the articular cartilage and constitutes a highly vascular and sensitive point which is in line to receive the force of a fall upon the trochanter, especially if there be flexion of the thigh at the time of impact. This fact explains the relative frequency of disease at this point both above and below the epiphysial plate. In fact it is quite rare to have a disease start at the upper and outer margin of the epiphysis or on the upper surface of the neck.

The third peculiarity is the highly vascular and active growth center located in the bottom of the acetabulum, which is almost in direct line to receive the shock of falls upon the great trochanter. It is therefore a vulnerable point, and with its predisposition to become diseased it locates nearly one-half of all hip diseases at this point.

In the early stages of hip disease it is impossible to ascertain by examination in which one of these places the disease really does exist or whether it may not be a synovitis. This last condition, however, is believed to be quite a rare affection at the hip joint. Fortunately in the early stages it is not necessary to know where the disease commences as we can be pretty well assured of its character, as it is quite rare to have anything but a tubercular trouble without it carries with it its distinctive symptoms.

The great majority being of this character, they are disposed to develop slowly, often occupying many months in completing the first stage, the stage that is characterized by a slight limp and an occasional pain in the knee and at times some slight muscular rigidity of all the muscles surrounding the joint which tends to fix it. These symptoms may vary in character and degree from day to day and usually correspond in severity to the amount of exercise taken by the patient. It is very common to have patients make these observations for themselves and still they are not will-

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ing to conform to the strict rules of treatment until they have severely suffered, when it is often too late to accomplish a perfect cure by the most approved methods.

In this first stage the mischief that is being done is out of all proportion to the symptoms manifested, and especially is this true, I believe, when the disease exists in the under surface of the neck in contact with the epiphyseal line. Large excavations may take place in the neck of the bone or even in the epiphyseal head, while the patient is yet able to move around on his feet. This is well proven by the often observed condition where the patient will have well-marked hip disease for many weeks or even months and be able to walk about to some extent, when suddenly all symptoms become aggravated and within a few days there are marked changes in the joint indicating that the neck has broken down or the head has separated from the neck and rapid shortening takes place; changes that imply great distruction of bone, the most of which must have taken place while the patient was yet able to walk. These are the patients that the surgeon finds very often sitting in a chair where they have been for many hours and sometimes days, having kept about to the last moment with an earnest desire to evade that extension that the doctor has promised them. They have suddenly become helpless and after settling down in the big chair could not be moved on account of the severe pain attending the slightest effort.

These patients always give a history of hip disease extending over a period of time varying from a few weeks to many months or even years. According to my experience the great majority of hip diseases are not subjected to mechanical treatment until they are quite helpless, as the direct result of the disease, and then I believe that a large number of the more kindly disposed cases will deliberately and against better advice discard these mechanical supports too soon, only to suffer relapse and finally to terminate after many years in destruction of the joint and anchylosis more or less complete. Some of the unfortunates that have suffered relapse have not infrequently paid the penalty, after many years of suffering, with their lives. This brings us to the consideration of the methods of treatment that are applicable to the first stages of the disease in young children and which may be called mechanical.

The various mechanical appliances that have been invented and their utility proven by our great surgeons to be all that we may desire in the later stages are very tedious and unwieldy for the child in the first stage. They are troublesome to apply and remove

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daily, they excoriate and annoy the little patients and the attendants so much that they are regarded a nuisance, so they are discarded and the parents are looking for some one or any one, no matter who, that will promise a cure without such troublesome apparatus.

In examining these young patients who have had only a slight limp in the morning for an hour or two, and possibly an occasional pain at the knee joint to indicate that their was any thing wrong, it will be found that there is no fixation by muscular irritability, that the range of motion is only slightly interfered with and the greater part of the time they can go about without even a limp. These cases do not require traction, as the natural muscular tension does not as yet exert its pressure upon the diseased portion of the bone.

Muscular rigidity and fixation of the joint is the earliest symptom of muscular tension being a source of irritation. If we can satisfy ourselves that traction is not indicated the mechanical treatment becomes very simple, as we only have to provide for joint fixation and rest. The degree of fixation required is always in proportion to the degree of involvement and when traction is not required the limits of fixation need not be very narrow and can be fully met by placing the patient in a suitable chair and keeping him there continuously except the time he spends in bed.

This plan also furnishes the desired rest; rest that is physiological and not restraining, which is not the case where more rigid fixation is employed in these early cases. A suitable chair can be made from an ordinary baby's high chair for children up to four or five years of age. The chair should be made just high enough to permit the patient to rest his arms upon a table at which it must be seated during its waking hours. The seat should be upholstered, but not very soft, one inch of curled hair being quite sufficient. Large feather cushions or very soft cushions of any kind are objectionable, as they tend to press the trochanters and thus crowd the head of the bone into the joint and the full weight of the body does not rest upon the tuberosities of the ischium. The arms of the chair should be made wide and of the same height as the table. The back of the chair should be flat and not round, as it will be more comfortable when the chair is reclined for the purpose of giving the child a nap. A peg, block or bracket should be fastened to each upper corner of the chair back and project three or four inches upward and backward for the purpose of resting against the wall when the chair is tipped back.

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The foot rest should be changed to one that is six to eight inches wide and placed at the height that will permit the feet to rest with ease, and if the correct height is obtained the child can throw the feet forward and rest the heels against edge of the step. It is not so desirable to have a low chair and small table with the child's feet resting on the floor, on account of the colder air on the feet and with the little ones the greater temptation to break away and have a run.

After the morning toilet the child is placed in the chair and taken to the breakfast table. After breakfast he can be moved to any table where he is to have his books and trinkets spread out before him for his entertainment. If the child be permitted to amuse himself with marbles, a frame of suitable size should be made of inch square wood and placed on the table to keep the marbles within reach. A little attention to these simple details adds very much to the comfort of both patient and attendants.

If the patient begins to weary of its toys, or at any time that he may desire it, he may be tipped back against the wall, a small pillow under his head, and he will soon fall asleep. If it seems more desirable there is no objection to placing the child on the bed, but it must be bed, buggy or chair all the time.

If the patient reclines in the chair the legs of the chair should rest against small cleats tacked to the floor to prevent slipping, and to maintain the desired angle. It is a very pleasant, and in no way objectionable deviation, to take the patient out in the perambulator in suitable weather. The principle that must have the greatest emphasis is, that the patient under no circumstances, can be allowed to put the foot on the floor.

It is remarkable how rapidly the cases improve under this simple plan, according to my experience, which, however, is not enough to establish any fixed rules of prognosis or estimate percentage of recoveries. Where there has been no muscular irritability to produce rigidity, a week or two, and all traces of the trouble will have disappeared, and then it becomes very difficult to retain the patient longer under restraint, but if he is allowed to again resume the accustomed sports in an equally short space of time the symptoms will recur. Steady improvement under any treatment is an evidence of its efficacy and appropriateness.

In the mild cases in young children where the muscular phenomenon has been established, it is better to place the patients under traction in bed for a week or two, or until a goodly range of perfectly free and painless motion is established, and then place them

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in the chair during the day and under light traction at night, continuing the treatment for a couple of months, after all evidences of trouble have subsided. The traction, however, may be omitted sometime before the other restraint.

This time will apply equally well to the mild case that has been placed under this plan of treatment before muscular disturbance is pronounced. It is not a good plan to allow a child its liberty a time or two for the purpose of making a diagnosis, for each and every relapse may be regarded as a complication which tends to prolong the treatment and interfere with perfect recovery.

One of the difficult things in connection with this plan of treatment and one which requires a little tact to overcome is to convince the parents of the gravity of the case, the necessity of prolonged and uninterupted restraint and also to convince the mother especially, that it will be possible to keep her child in a chair for three months for "why don't you know that he would cry himself to death if he did not have his own way, now, since he has been lame, etc." To tell such a mother that her child had better cry himself to death than to die from hip disease, as it will be quicker and less painful, has a very good effect. It sets her to thinking. When a mother says that such restraint cannot be enforced with her child, simply assure her that she can let the child go for a short time and he will keep still of his own accord, and that will set her to thinking and after awhile she will conclude that perhaps she can control the child. If the child is disposed to cry much, to have his own way, it will be well to tell the mother that the best and quickest way to convince the child that it is useless to cry, is to sit close by and look at him without saying a word. A child cannot cry very long without having some encouragement.

SUMMARY: First, A very large proportion of all cases of hip joint disease, are first under the care of the practitioner, subsequently the surgeon, and mechanical means of treatment are not used until the patients are rendered helpless by the disease,the period of time varying from a few weeks to many months.

Second, The anatomical peculiarities of the hip joint make it possible to have very serious and extensive destruction of bone while the patient is yet able to move about, and without producing very marked disturbance in the periarticular structures.

Third, Most hip diseases are tubercular in character and the localizing cause is, in the majority of the cases, slight traumatism to which the hip is peculiarly susceptible, owing to its anatomical

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peculiarities, especially in the arrangement of the epiphysis of the head of the femur and bottom of the acetabulum.

Fourth, Writers and teachers do not give sufficient attention to the importance of early treatment of hip disease, as it is the first stage of the disease that usually settles the fate of the joint as to its future usefulness.

Fifth, In the first stage of hip disease, before muscular rigidity has been established, traction as a means of treatment is not necessary and the limits of fixation need not be very narrow. Keeping the patient constantly in a suitably constructed chair, except while in bed, with suitable means of entertainment will meet the indications for mechanical treatment.

Sixth, The chief difficulties to overcome in instituting these mild means of mechanical treatment are to convince the parents that the apparently simple condition is in reality very serious, and that the primary treatment should, regardless of the subsidence of all symptoms, be contined for three months at least.

VENETIAN BUILDING.

PUNCTURED WOUNDS OF THE FEET.

A REPORT OF TWO HUNDRED AND THREE CASES TREATED AT THE MEDICAL BUREAU, WORLD'S COLUMBIAN EXPOSITION, DURING THE "CONSTRUCTION PERIOD," JUNE 1ST, 1891, TO MAY 1ST, 1893.

BY S. C. PLUMMER, A. M., M. D.,

ATTENDING PHYSICIAN, WORLD'S COLUMBIAN EXPOSITION, AND PROFESSOR OF ANATOMY, NORTHWESTERN UNIVERSITY MEDICAL SCHOOL.

Of 3,356 surgical cases, of all grades of severity, treated at the Medical Bureau of the World's Columbian Exposition, from its organization for the treatment of patients, June 1st, 1891, to the opening of the Exposition, May 1st, 1893, 203 come under the head of "punctured wounds of the feet," the implement inflicting the injury being, almost invariably, a nail, and in a vast majority of cases, a rusty nail, an injury which, to the lay mind, calls up at once visions of lockjaw and other dire results, a dread not without foundation when viewed in the light of scientific knowledge; for we now know that the bacillus of tetanus is found in the dust of the street and is thus likely to be introduced into

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a wound of the foot, and that, moreover, the bacillus being anaerobic, punctured wounds are of all kinds the most favorable to its growth. Perhaps, then, the greatest value of this report will be its lesson as to the value of the prophylactic treatment of tetanus by the thorough disinfection of all suspicious wounds; for in no case, so far as known, has tetanus followed.

The cases from which this report is made include all the cases of punctured wounds of the feet which came to the Medical Bureau during the Construction Period of the Exposition, and were treated by Drs. Allport, Yeager, Plummer, Marquis, Edgerly, Gentles and Hillmantel, of the medical staff. By the order of Dr. John E. Owens, the medical director, as complete records as possible have been kept of all cases treated at the Medical Bureau, but as the hospital keeps no patient over night, being essentially an emergency hospital, many cases have passed from under our notice after the first treatment. Of the cases included in this report 86 were kept under observation during the entire period of disability, that is, until the patient was able to return to work; 15 other cases were seen for the last time at from 1 to 12 days after the injury. Many of the latter doubtless returned to work a day or two after last coming under observation, but being more interested in the practical than in the scientific aspect of their cases, did not report again at the hospital. The remaining 102 cases were not seen after the first treatment.

The occupations of the patients were as follows: Laborers 64, carpenters 40, Columbian Guards 13, bridgemen 11, foremen 5, painters 7, carpenters' helpers 5, electric wiremen 5, tinners 5, plasterers 4, staffworkers 4, janitors 4, moulders 3, roofers 3, ironworkers, steam fitters, plumbers, superintendents, cornice makers, inspectors and glaziers, each 2; and clerks, machinists, machinists' helpers, upholsterers, tallymen, engineers, draughtsmen, waiters, gasfitters, boilermakers, sculptors, teamsters, gardeners, and "not stated," each 1. You will thus see that 35 occupations are represented, including all classes of society, and consequently all grades of cleanliness, or the contrary.

In 202 cases, where the date of injury and date of first treatment are given, 173 are found to have been treated on the same day that the injury occurred, and 29 from 1 to 6 days after the injury; one case being treated 6 days after; one 4 days; one 3; seven 2, and nineteen 1 day after the injury.

The cause of the injury was, in every case but one, a nail. In the one exceptional case the cause was a piece of metal which

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fell upon the foot. In 39 cases, where the kind of nail is specified, 24 were the ordinary blunt pointed steel nails, while 15 were the sharp pointed round wire nails. In 16 cases the nails were new and clean; in 23 cases rusty.

In 5 cases the puncture extended clear through the foot; in 1 case the punctured wound was complicated by a contusion, and in 1 case there were two punctured wounds. In 4 cases, where the patients tried domestic treatment before coming to the hospital, the foot was found swollen and painful. In 1 case the domestic treatment consisted of a mixture of sugar and soap; in another of a cow manure poultice.

In 9 cases foreign bodies were found in the wound, this number representing over 4 per cent of all the cases. In 3 cases pieces of rubber boot were found; in 2, pieces of leather; in 2, pieces of sock; in 1, a piece of a nail; and in 1, sand.

In 119 cases in which the injured foot was designated, the right foot was found to be injured 70 times, the left 49 times. In 79 cases in which the portion of the foot injured was designated, the location was as follows: Sole 46, dorsum 5, sides 6, toes 7, web of toes 3, and heel 2. The wounds of the dorsum were, in most instances, caused by pieces of falling timber having nails projecting from them. In wounds in other localities the nail was often driven into the foot with great force owing to the fact that the man was weighted down with a burden at the time of receiving the injury.

The treatment of punctured wounds of the feet may be summed up in one word, thoroughness, which implies primarily in the surgical treatment of any wound, the obtaining and maintaining of asepsis. In most cases the wound is apparently trivial; and the surgeon may share with the patient a feeling that active interference is unnecessary; he will trust to good fortune for a favorable result, and if complications arise, treat them when they appear. This can be done only at great risk to the patient. When it is called to mind that, in over four per cent of cases, foreign bodies are present in the wound; and that there is a probability in every case that pyogenic microbes have been introduced, and a possibility that those of tetanus may also be present, and that under the very condition favorable to their growth, namely, an anaerobic condition, it will be seen how irrational this "let well enough alone" treatment is. One case in this series will illustrate the danger of this course. The injury was so trivial that no treatment was thought necessary; cellulitis followed and the man was disabled from duty for twenty

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days, a longer period than that of any other case where the duration of disability is recorded.

The domestic treatment by various kinds of poultices in the four cases coming under our observation was followed by cellulitis.

Although our treatment varied much in different cases, the routine treatment finally agreed upon as being applicable to most cases and followed by the best results, was as follows:

1. Thorough cleansing of the foot with solution of bichloride of mercury 1-1,000.
2. Trimming the edges of the wound.
3. Swabing out the wound with a probe lightly covered with cotton and dipped in 95 per cent solution of carbolic acid.
4. Drainage.
5. Antiseptic dressing.
6. Rest.

In the sole of the foot, where the epidermis is very thick, the edges of the wound frequently came together with valve-like accuracy, effectually preventing the escape of anything from the wound, so that, in some cases, it was only after trimming away the edges that the presence of a foreign body was discovered. This procedure also favors drainage.

The use of the probe in cleansing these wounds is preferable to syringing, for two reasons: First, it is easy to reach the bottom of the wound with a probe, while it is doubtful in many cases whether this could be done with a solution applied by a syringe; secondly, a small particle of foreign material will often adhere to the cotton and thus be removed.

In some cases the use of peroxide of hydrogen by injection was substituted for the probe with carbolic acid. This would suggest itself as being a particularly appropriate agent as far as the bacillus of tetanus is concerned, on account of the anaerobic qualities of the bacillus and the oxidizing property of the agent.

For drainage a strand of silk-worm gut doubled upon itself was most frequently used. This has the advantage of being easy to introduce, and by its elasticity tending to keep the edges of the wound apart. In some of the larger wounds a gauze tampon was substituted for the silkworm gut.

The antiseptic dressing most frequently used consisted of powdered boric acid next to the wound and a covering of dry bichloride gauze, held in place by a muslin roller. At first iodoform was extensively used instead of the boric acid, but comparative tests showed it to be in no way superior.

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Rest was directed to be as nearly absolute as possible for at least two days, at which time the patient was directed to return for redressing; with elevation of the foot. In thirty-eight cases the wound was so slight that the patient was allowed to return to work at once; but in the other 165 cases rest was uniformly enjoined.

Suppuration was as a rule prevented. In many cases the wound was found perfectly dry on the second day after the injury; but in the majority there was a slight discharge without, however, any evidence of inflammatory reaction around the wound. Drainage was usually removed the second day after the injury. The dressing was reapplied and the patient prohibited from walking on the injured foot until the wound was entirely healed.

Of ninety-eight cases which were under observation at least two days after the injury; eighty-six recovered without appreciable suppuration or any other sequelae. Of the twelve cases in which there were sequelae, in five there was suppuration; in five cellulitis, in one abscess, and in one, synovitis of one of the metatarso-phalangeal joints, which was probably punctured. In one case of suppuration the patient had removed the antiseptic dressing and applied a piece of meat in its stead; in another a foreign body had remained in the wound and was expelled during the suppurative process. In one of the cases of cellulitis rest had been prescribed, but patient returned to work at once, and, after four days' work was disabled for seven days.

In cases where inflammation of any kind followed the injuiry, the wound was thoroughly cleansed, usually with peroxide of hydrogen, and the wound dressed, in most cases, with a wet boric acid dressing.

I wish again to call attention to the fact that tetanus was not a sequel in any of the cases, showing that its occurrence does not depend upon any particular kind of nail causing the injury, or upon its being clean or rusty; nor does it depend upon the portion of the foot injured.

In eight-six cases the entire duration of disability is recorded. In thirty-eight of these cases the men return to work at once. In the remaining forty-eight the disability extended over periods varying from one to twenty days. The average for the eighty-six cases four days. As this, however, includes all the cases in which the disability was nothing and only part of those in which one or more days were lost, it is manifestly too low for a general average. In the forty-eight cases in which the patient did not return at once to work, and in which he was kept under observation until able to

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return to work, the duration of disability is seven days. Taking this as the average for the 165 men who did not immediately return to work, the estimated total number of days lost on account of punctured wounds of the feet is 1,155, an average of a little less than six days for each of the 203 cases. This represents almost a loss of four years' work for a single man.

4304 LAKE AVENUE.

THE TREATMENT OF TYPHOID INTESTINAL HEMORRHAGES WITH REPORT OF CASES.

BY A. A. KNAPP, M. D.

RESIDENT STAFF COOK CO. HOSPITAL

The usual treatment for a typhoid hemorrhage in this hospital has been to elevate the foot of the bed, apply an ice-coil to the abdomen and notify the resident physician, who would as a rule order an opiate, ergot or lead, according to his belief in the merits of the respective drugs.

As I did not believe in these methods, I formulated a different plan of treatment, namely morph. sulph. gr. ¼ hypodermically, followed by pulv. opm., one gr. every hour when awake unless respirations fell below 12 per minute. Special instructions were also given, not to elevate the foot of the bed and not to apply an ice-coil to the abdomen. My reasons for this treatment were as follows: Elevation of the foot of the bed tends to stimulate the patients heart action and stimulation increases the hemorrhage by preventing the formation of a clot in the bleeding vessel or by dislodging a clot already formed. The ice-coil applied to the abdominal wall stimulates muscular contraction and intestinal peristalsis and these hinder the formation or aid in the dislodgment of a clot in the bleeding vessel. Cold stimulates peristalsis as is shown by its use in chronic constipation.

Opium, alone, was used because it quiets the patient, who is usually very restless and anxious. It also slows and steadies the circulation, bringing down the pulse rate, lessens arterial tension, checks or prevents intestinal peristalsis, puts the intestine entirely at rest, and favors the formation of a clot in the bleeding vessel and the permanent checking of the hemorrhage. Peristalsis is a great factors in increasing hemorrhage because the constant motion inhibits clot formation at the bleeding point.

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Ergot was not used, because, in addition to contracting arterioles which might be of service, it stimulates all unstriped muscular fiber, including that of the intestines and this would favor peristalsis. By contracting the arterioles ergot increases the heart's work and raises arterial blood pressure; and this favors the dislodgment of clots.

Lead salts were not used because a sufficient quantity could not be administered to exert any influence on the bleeding vessel. The claim for the remote general systemic influence of lead upon hemorrhage is disputed by many authorities.

Our chief dependence was upon opium and absolute quiet, as by this means all the indications appeared to be most perfectly met. Our endeavor was to do all that would favor absolute rest to the patient and to the bowel, and that would tend to clot formation in the bleeding vessel, and to refrain from everything that would increase peristalsis or blood pressure, or inhibit clot formation.

Usually after two days the time necessary for the formation of a firm clot, this treatment was discontinued. If hemorrhage now recurred, it was from the extension of the ulceration or from the implication of a different vessel. Though this method is chiefly theoretical, its use by my colleague, Dr. W. E. Durr, and myself, for the past three months, has proved very satisfactory, and it is still employed at the hospital. At any rate it is not more deadly than other methods of treatment. A more extended trial and observation is necessary to fully demonstrate its value.

The following cases of typhoid intestinal hemorrhage occurred during my senior medical service from October 1 to December 31, 1892, and were treated by the method I have described:

Case. I. Belle S., white, single, 15, Russian Jew, entered the hospital October 3, 1892, in the service of Dr. Senn. She was said to be suffering from a relapse of typhoid fever. She was very delirious, face flushed, fairly well nourished, tongue coated and fissured and covered with sordes, as were the lips and teeth. A few whistling rales in the chest posteriorly, and mitral regurgitation were present. Abdomen tense and tympanitic and splenic dullness extended from the seventh rib to the costal arch. Urine contained considerable albumen. Incontinence of urine and feces. Pulse, 136; temp., 104°; resp., 40. Salol, whisky, digitalis and strych. sulph. were given and their use was followed by some improvement. The second day after admission she had a small intestinal hemorrhage and was very restless. For two days she was given morph. sulph. gr. ¼ hypodermically, and pulv.

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opi. gr. one, every hour, except when asleep or when respirations fell below twelve per minute. The hemorrhage did not recur and she run a normal typhoid course, but with high temperature and pulse. At the end of two weeks she began to eat egg soon after toast and made a good physical recovery.

Case II. Michael C., 27, white, married, laborer, entered the hospital December 3, in the service of Dr. Ochsner. Family history negative; moderate drinker and smoker; no previous severe illness. On admission he complained of general malaise, headache, backache, anorexia and epistaxis. He is well nourished; tongue coated, dry and fissured. Blowing systolic murmur at apex of heart. Abdomen negative; area of splenic dullness enlarged; urine, negative. Pulse, 96; temp., 103:6°; resp., 30. He was put upon typhoid orders and salol gr. v. four times a day. His pulse, temperature and respiration averaged about the same for seven days, with slight diarrhea and abundant rose spots. December 10 he had a moderate intestinal hemorrhage and was given morph. sulph. and pulv. opi. as in Case I., for two days. The bowels moved naturally, but one catheterization was necessary, and he made an uninterrupted recovery. His temperature became permanently normal December 17, and he was discharged at his own request December 25, 1892.

Case III. Michael F., 29, single, laborer, Irish, entered the hospital September 25, 1892, in the service of Dr. Senn. He was very delirious and dull; tongue dry and coated; a few dry rales in chest and spleen enlarged and palpable below costal arch. Urine contained abumen and pus. Pulse, 88; temp., 104.2°; resp., 20. He was put upon typhoid orders, salol gr. v. four times a day, but had a very persistantly high temperature, which ranged from 103° to 105.6° in spite of frequent sponging. Pulse gradually increased in frequency and decreased in strength, and whisky, strychnia and tr. digitalis were administered. Incontinence of urine and feces followed, accompanied by well-marked subsultus. Mental disorder worse; lungs filled with rales and expectorate streaked with blood, though no consolidated area could be found. October 1, pulse, 120; temp., 104°; resp., 24. Patient was given peptonized milk. He gradually failed, and October 12 his pulse was 148 and very feeble; respiration 42; and he had a hemorrhage with one bowel movement, and was very restless. He was given morph. sulph. gr. ¼, hypodermically, to keep him perfectly quiet, but steadily got worse and died two days later, but without recurrence of the hemorrhage.

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Case IV. John L., 26, single, German, bar-tender, entered the hospital December 17, in the service of Dr. Ochsner. He had been ill a week; was quite delirious; tongue thickly coated and dry; abdomen tympanitic and splenic dullness much increased. Urine contained albumen and hyaline and granular casts. Pulse, 112; temp., 105.2°, resp. 32. He was put upon the usual typhoid treatment with strychnia, digitalis and camphor. Bowel movements and urinations were involuntary from the first. Whisky was added to his medicine, and on December 20 he was given by rectum every six hours ʒ viii. of predigested milk, with gtt. x. of tr. opii, which was well retained, and he immediately improved. December 25th his mental condition was better; pulse, 100; temperature, 101°; respiration, 24, and the stimulants and nutrient enemata were reduced. He progressed well until December 29, when he had a small intestinal hemorrhage, and was given the treatment above described. Five hours later, pulse was 104, temperature 103° and respiration 18; he had a very profuse hemorrhage, followed two hours later by another; pulse, 146; temperature, 104°; respirations, 16. He gradually became worse and had two more hemorrhages, and died twelve hours after the first hemorrhage. No post-mortem could be obtained.

Case 5. Dan C., 28, single, Scotch, laborer, entered the hospital September 30, in the service of Dr. Senn. He drinks and uses tobacco freely. He had been ill eleven days with general malaise, headache, anorexia, nausea, epistaxis, diarrhea, fever and chills. He is well nourished, tongue red and fissured and covered with sordes. Spleen a little enlarged, a few rales over chest posteriorly. Patient was cyanotic and very weak, pulse 160°, temperature 98.8°, respiration 32. He was given a single dose of whisky and put upon salol gr. v. four times a day; next day pulse was 100, teperature 103.8°, respiration 32. He had a small hemorrhage, and was at once put upon the treatment described above. The next day the pulse was 136, temperature 102.4°; respiration 40, with signs of a lobar pneumonia over right lower lobe. October 3 he had another hemorrhage, the pulse again reached 160, temperature 104.2°, and respiration fell to 20, and he was again put upon the opium treatment. The lung and typhoid symptoms gradually improved, and he run a rather severe typhoid course with no further hemorrhages, however. The temperature remained normal from October 26, and the patient made a good recovery, save for a slight phlebitis of left leg.

Case 6. John M., 29, single, Scotch, laborer, entered the hos-

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pital November 17, to the service of Dr. Ochsner. He gave the usual typhoid history and physical signs. Pulse 130, temperature 103°, respiration 28. Two days later he had hemorrhage and was treated as in the preceding cases. Pulse, temperature and respiration about the same. The hemorrhage was repeated on the fifth and sixth days, and the same remedies continued; but his general condition remained about the same and he ran a rather severe typhoid course. The temperature remained permanently normal after December 16, and he made a good recovery. December 24, he was found to have a temperature of 103°, and passed through another course of typhoid unaccompanied by any interesting complications, and is now convalescing under the care of Dr. Preble.

Case 7. Peter B., 26, single, Scotch, laborer, entered the hospital December 3, the service of Dr. Ochsner. He smokes and chews moderately, and has had no severe illness except typhoid fever six weeks ago in Omaha. He gave a history of a relapse of typhoid and was put upon the usual treatment. Pulse 110, temperature 103°, respiration 26. He was at first constipated and received magnesium sulph. ℥iv. once, and then had a little diarrhea which was checked with bismuth. December 10, he had a small hemorrhage and was put upon the treatment as described until December 12; at this time his general condition was bad, he complained of sore throat and refused nourishment and medicine, so he was given per rectum ℥viii. of predigested milk with strychnia and digitalis every six hours, and this was kept up and tolerated for five days when he was able to take peptonized milk by the mouth, and the nourishing enemas were stopped. He ran a very severe and protracted typhoid course complicated by double suppurative otitis media. He is now slowly convalescing under the care of Dr. Preble.

Case 8. John B. E., 20, single, waiter, entered the hospital October 22, the service of Dr. Senn. He had had scarlet fever and measles when young. Two weeks ago he began to feel badly general malaise and aching, anorexia, insomnia, constipation, fever and chilliness and headache. He was fairly nourished, nervous, tongue coated, spleen enlarged, urine contained albumen but no casts. Pulse 96, temperature 103°, respiration 20. He was given salol gr. v. four times a day, and two days later had considerable diarrhea which was controlled by bismuth. An abundant crop of rose-spots soon developed. He ran a moderately severe course of typhoid until November 1, when he had a hemorrhage and was given the morphia and opium treatment for two

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days. Another hemorrhage occurred November 6, and the treatment was repeated. On November 19, there was another hemorrhage. Nothing more of interest developed, he ran a protracted course, made a slow recovery with the development of an abscess on the back of his neck and is now convalescing under the care of Dr. Preble.

THE BICHLORIDE OF GOLD TREATMENT FOR DYPSOMANIA.

[The following communication from Dr. Keeley, of Dwight, is printed in accordance with that spirit of fairness which belongs to true journalism and the privilege every man should have of presenting his side of any given question. The reply by Dr. Chapman will close the discussion of this particular issue, so far as the RECORDER is concerned.—EDITOR.]

To the Editor—I notice the publication of an article, under the above caption, in the CHICAGO MEDICAL RECORDER, by Dr. Chapman, whose audacity and misrepresentation excite my curiosity and surprise.

Dr. Chapman asserts, or insinuates, that he has been employed as a physician, in one of the Keeley Institutes; and has treated 800 cases of inebriety by the gold cure. He then goes on to give the formulary of the gold cure, as he alleges, asserting that with strychnia, atropia and other drugs, he has succeeded in curing inebriety.

Dr. Chapman was never employed as a physician in a Keeley Institute. We do not know him. He knows nothing about the drugs I use in the cure of inebriety. The formulary, as given by him, he did not obtain from me, nor from any physician employed by me, in any Keeley Institute; but he obtained the formulary he publishes from the newspapers, as they have been published by various medical fakirs, at various times. These formulae, as published by Dr. Chapman and others, are not the drugs I used, except the gold. I use no strychnia, aloes, atropia, muriate of ammonia, barber pole, bichloride of gold, tonic, dope or apomorphia, or the other drugs mentioned.

Dr. Chapman has never treated 800 cases of inebriety, nor has he ever seen that number treated or cured, with these drugs. If Dr. Chapman uses strychnia, hypodermically, as he claims to, I would candidly advise all people who value their lives to keep

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away from him for fear of losing them. The quantity which he says he gives daily, two grains, I would consider a dangerous dose.

I have had a great experience with medical fakirs during the last few years. They all take nearly the same course and method. They are nearly all of the unfortunate, impecunious class, and perhaps inebriates. They cling to the code of the profession, according to the letter, because they are afraid to abandon it; but they do not hesitate to violate any other department of ethics, as classified by the divine law giver, or developed by Hamilton or Herbert Spencer. In this predicament, they attempt to clothe the gold cure, the medical child in the manger, with the mantle of the code. To please the profession, and gain its favor, they publish these pretended formulae, as mine, and then confess that they are successfully treating inebriates with these drugs.

Dr. CHAPMAN enters the Pathological Society of Chicago with his paper on Bichloride of Gold, posing as, and assuming the airs of a hero. He has visited the enemy's camp and secured the coveted trophy. He emulates the valor of Jason in his recitation and narrative, and in his own imagination, and perhaps in that of some of his hearers. But Dr. Chapman did not secure the golden fleece. As a substitute, he only pulls a little wool over the eyes of the worthies of the Pathological Society.

The gentlemen of this society, however, know as well as I do that Chapman's conduct was ungentlemanly, if true; but as it is not true, his conduct, in reading such a paper can be sanctioned by no code of ethics, medical or christian.

But reading Chapman's remarkable article, I am paralyzed with astonishment at his sublime impudence. He claims to have learned the "secret" cure, which he admits has cured 300 inebriates, but which has cured more than one hundred thousand in my hands, and then asserts that the medical men who are using this remedy, and have used it so successfully, do not know how to use it; but he, Dr. Chapman, does know all about it, and just how it should be used.

Dr. Chapman and other medical writers before him in their criticisms of the gold cure for inebriety make the startling discovery that there is no such preparation as the "bichloride of gold," but that the formula is trichloride of gold. They also assert that the chloride of gold and sodium, which is the drug I use does not form a stable solution. I called this gold preparation for convenience, the "double chloride of gold." I never named the remedy I used the "bichloride." This name was invented by a

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patient, a medical man, who wanted a covenient title for his club. He called it "bichloride" because he found difficulty in naming the organization the "Double Chloride of Gold Club," or the "Chloride of Gold and Sodium Club."

The remedy I use is a secret. It has never been analyzed; it never will be. The formula has never been published or printed. In my opinion, it never will be. It is my opinion also, that the only business the public has in this matter is the question whether the remedy cures.

If the profession or the public can prove that I do not cure inebriates, then I can be dealt with as a fraud, for I have never hesitated to preach, write and proclaim that I can cure inebriety, and do cure it, and that I believe the destiny of my method of treatment is to sober up this drunken world and aid in keeping its straying or staggering feet in that straight and narrow path prescribed by the Savior.

In its practical relations, my remedy is an attractive object for parasites. Dr. Chapman's remarkable assertion that the physicians of the Keeley Institutes do not understand how to use the remedy, and that he does, has no equal in literature or practice. There is no more contemptible position among men than that taken by Dr. Chapman, when he pretends to have stolen my remedy, and then admits its virtues and proves them; but goes on to assert that he knows how to properly use them and I do not.

Dr. Chapman quotes a fragment of doggerel rhyme for my benefit at the opening of his article. I may be permitted, I trust, to return his compliment. As I estimated his conduct in this matter, I am reminded of a verse by that truly great poet, Robert Burns:

"Ha, where ye gaun, ye crawlin ferlie,
Your impudence protects ye sairly;
I canna say but ye strunt rarely,
Owre gauze and lace:
Though faith, I fear ye dine but sparely,
In sic a place."

LESLIE E. KEELEY, M. D., L.L. D.

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REPLY TO DR. KEELEY.

By Dr. C. F. CHAPMAN, CHICAGO.

With reference to L. E. Keeley's remarks on my paper on the treatment of dipsomania recently published in the RECORDER, I would state as follows: I have treated over three hundred cases by the formulae given in my article; I do not claim to give Keeley's exact formulae, but I do claim to give formulae which are identical therapeutically with his; I claim that Keeley does use strychnia, he does use atropia, he does use apomorphine, or principles identical with these in therapeutic effect. For instance, if he declares that he positively does not administer "strychnine," then he certainly uses "brucine," which is therapeutically the same as "strychnine." I do not say in any part of my article that I possess any especial skill in exhibiting the treatment, but I distinctly say therein that the mode requires care, and a study of the personal idiosyncrasies of each patient, which the Keeley method does not require of its attendants.

With reference to nomenclature I would simply say that Keeley has called, and does call his preparation the "bichloride" and "double chloride of gold," whereas, as I remarked in my paper, no such combinations exist. There is a "chloride of gold, and of sodium."

Regarding the following statement by Keeley: "The remedy I use is a secret. It has never been analyzed, it never will be." Does he desire to have it believed by any sane man that he has discovered a compound beyond the power of chemical analytical science?

Leslie Keeley is a malicious calumniator when he calls our planet a "drunken world," but his interest in it is demonstrated by his offer to take charge of the same, payment strictly in advance, every week. His weakness is made evident by the manner in which he distorts, misquotes and misrepresents my statements. I never said that the Keeley physicians do not understand how to use the remedy, but that I do. What I said, and what I repeat, is that the Keeley physicians are exhibiting a potent mixture without knowing its composition, and giving powerful remedies without being aware of the dosage, or quantities given. Keeley's literary knowledge is on a par with the man himself. The "doggerel" he claims I quoted, I would respectfully inform him was written by Thomas Hood, and appears in his delicate satire: "Miss Kilmansegg and her Precious Leg."

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I would sum up by making the following charges against the "Cure" and its father: 1st, it is a secret; 2d, it contains powerful remedies capable of working injury both to mind and body, (see various journals, both medical and general, and Dr. Dewey's recent article in the *Medical Standard*); 3d, being a secret and containing powerful agents, the exhibition of the same at the institutes by men who are in ignorance of its composition, is unscientific and a source of positive danger; 4th, that as the "injectors" or medical attendants at the Keeley Institutes are not aware of what they are giving, there is no necessity of their being physicians or even undergraduates; 5th, that while the means used and methods pursued by the "Cure" people are perhaps in accordance with certain lines of sharp commercial enterprise, they are not in accordance with any ethical code on earth, nor with the moral principles of humanitarianism; 6th, that when Keeley declares he has a mixture that no chemist, no matter how skillful, can or ever will be able to analyze, he declares himself to be either ignorant or deceitful; 7th, that when Keeley declares his nostrum does not contain a poison, but at the same time acknowledges the presence of "gold" under the form of a chloride, he exhibits most woeful ignorance, as this agent is as poisonous as corrosive sublimate.

Let the medical profession read the *London Lancet* and other foreign medical journals, to obtain an idea of the opinion our English colleagues have of this auriferous prophet.

If it were not for the fact that this soi-disant "cure" has wrought injury, and that there is positive therapeutic evidence of the fact that it contains powerful poisonous agents, we might compare it to a universal eye-cure that flourished during a part of the sixteenth century. This nostrum was in the form of a triangular piece of parchment folded and securely sewn, and was sold by an eminent quack, who declared that its formula had never been and never would be analyzed or made known. In fact he threatened dire destruction on any one who would venture to even try to discover the same. One adventurous wight, however, had the temerity to rip open the package and unfold the parchment, on which he read in dog-latin the following legend: "May the devil pluck your eyes out and fill the holes full of dung."

In conclusion I would state that Keeley's audacity and misrepresentation excite in me neither curiosity nor surprise.

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THE

CHICAGO MEDICAL RECORDER.

Journal of the Chicago Medical Society.

Drs. JOHN A. ROBISON, WILLIAM T. THACKERAY, EDMUND J. DOERING,
Committee on Publication.

Dr. ARCHIBALD CHURCH, Editor for the Committee.

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Society Proceedings.

THE CHICAGO MEDICAL SOCIETY.

Regular Meeting at Orpheus Hall, May 15, 1893.

Dr. C. W. EARLE, President, in the chair.

The minutes of the preceding meeting were read and approved.

The Committee on Membership was called, but made no report.

The applications of Drs. H. W. Gentles, G. P. Marquis, H. A. Benz, E. S. Prettyjohn and J. L. Hillmantel, were read and referred to the Committee on Membership.

Dr. E. R. BENNETT read a paper on Electro-Diagnosis, and exhibited an electrode.

Dr. H. N. MOYER: I don't think this paper requires extended discussion at this time as the methods described are those in general use among neurologists. The electrode is certainly ingenious, and possibly by that means we might be able to eliminate one source of error, although I am confident that variation in pressure is not an important element in electro-diagnosis, the varying resistance of the skin appears to me to be a more important source of error. One statement in the paper which might be subject to some difference of opinion is regarding the differentiation of spinal

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and peripheral lesions from cerebral lesions. Until within a few months it has been held that electrical reactions show either complete or partial degeneration in spinal or peripheral lesions, but I think late experiments will refute that idea, and while it is perhaps generally true, there are now and then cases in which cerebral disease may give altered reactions. Regarding the general usefulness of electro-diagnosis, I felt when I first began work in this line that I could diagnose everything with the electrical current, but that is a position from which I have receded; occasionally you will meet with a case which it will differentiate for you in a way that nothing else will, but in my experience those cases have been somewhat exceptional. In medico-legal work there is, as the doctor has said, an occasional case in which it will confirm the patient's statements or refute them, but in my experience those cases have been very few indeed, and in most railroad cases, so-called, the symptoms are subjective. While I think that the electrical current is useful, I have not found it as useful as I formerly believed, and cases are exceptional in it which it is signally useful.

Dr. ARCHIBALD CHURCH: In regard to the use of electricity and the construction of electric appliances simplicity should rule. Every time a new spring, connection, current breaker, or anything of the sort is introduced into the circuit, another element of uncertainty is involved. The amount of moisture in your electrode and the skin, in other words, the amount of resistance between the terminal of your battery and the parts to be affected is of the greatest importance, and a reasonable amount of pressure is necessary to allow of that conductivity which is essential to the examination. The use of electricity is certainly a very valuable item in the makeup of a physician's ability to cope with the problems of diagnosis. Its therapeutic value, aside from the cautery effects, may be limited almost entirely to peripheral diseases of the nervous apparatus, where also it is particularly applicable as a diagnosis means.

Dr. A. E. Hoadley read a paper entitled, "The Importance of Early Treatment of Hip Disease." See page 394.

Dr. JOHN RIDLON: About the normal anatomy of the hip joint there can of course be no discussion; but my clinical experience leads me to different conclusions from those advanced by Dr. Hoadley. One would expect, as indicated by the reader of the paper, from the anatomy of the part, that separation of the head of the femur at the epiphyseal line would be the rule in all cases where the disease had advanced to any considerable degree;

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I have, however, very rarely seen it. As to the location of beginning tubercular lesion, it ought to be, as Dr. Hoadley has pointed out, at the junction of the epiphyseal with the articular cartilage, if every case of hip disease was caused by traumatism; but I doubt if traumatism is the cause in even one-half the cases of hip disease, that is, recognized traumatism of sufficient severity to be remembered by the child or parents. It is generally admitted now that these cases are tubercular, and most of them due to a secondary focus, that is, tuberculosis occurs here from tubercular material brought from elsewhere in the body. In such cases there is no rule for determining the location of the osseous lesion. It occurs quite as frequently in one part of the head or neck of the bone as in any other. Furthermore, there is no way to determine the location of the tubercular process so long as it is confined to the bone, and no data from which we can prognosticate whether the disease in any certain case is to be of a mild or a severe type. These things being so, it behooves us to make our diagnosis at the earliest possible moment, and to treat each case with earnestness and devotion. It is my practice to immobilize the joints in these slight cases as completely as in the more severe ones, and to continue the immobilization until a cure has been effected. All cases are placed in recumbency until all active symptoms are in abeyance and the joint well on the road to recovery. Only so, in my opinion, can we obtain the shortest possible duration of the disease, the least destruction of bone, and the best functional result.

Upon examination if there be any disease of the joint you will find as an early and invariable symptom, restricted motion at that point, and you cannot adduct or abduct that leg as well as the other, every one of the normal motions will be somewhat restricted if there is disease there, and it demands the most earnest, faithful and persistent treatment until that restriction of motion has been wiped out. The only other constant symptom of hip disease is shrinking of the muscles that control the motion of the hip joint. I make that point for this reason; you may get restriction of motion in the hip joint and there may be no hip disease there, but if there is disease there there will be shrinkage of the muscles and consequent loss of control. Only a few days ago I saw a case that had been treated for two years for hip disease, by extension, in which there was no perceptible loss of motion of the joint, and no shrinkage of the muscles; persistent effort showed four motions at the joint in all directions, but there was a limp. I believe that if there is hip disease the hip joint ought to be put

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into absolute physiological rest until the symptoms have disappeared, but I would hardly feel safe in risking the constitutional treatment Dr. Hoadley has advocated.

Dr. E. WYLLYS ANDREWS: The pathology of this disease has received comparatively little discussion this evening. Dr. Sayre has stated definitely, in some editions of his work on orthopedic surgery, that hip disease is always of mechanical origin; while, on the other hand, König and most European surgeon early taught, as the result of pathological study, that tuberculosis is the actual cause of caries in the hip, in the spine and cancellated bone generally. It seems to me that the bacteriological picture is distinct in every one of these cases. Tubercular foci exist not in the form of cheesy cavities, which are the late stage of tuberculosis, but in the form of minute pinkish granular tubercles scattered throughout the bone, before any clinical history is presented, exactly as in the knee, the spine, or any other bone which is going to break down. In perhaps a third of the cases of hip disease the foci are destined to soften and produce an arthritis. It does not alter this fact that the exciting cause may be an injury. Although it is true that in hip disease a slight injury is generally alleged as the cause, it is an injury entirely unable to produce disease in a healthy bone. Were an inspection of the interior of the bone possible, a good surgeon or pathologist, seeing a case of hip disease in the early stage of the clinical history, or before it has a clinical history, could prophesy the result. Without such inspection how is an accurate prognosis possible? It is essentially a thing uncertain. The destructive process by embolic infarctions should not be forgotten. Tubercular disease of the bone and of other structures is particularly liable to produce a necrotic area, it is common to find necrotic masses in the head of a bone, and these masses are not simply ulcerated places, but are wedge-shaped pieces of dead bone, the circulation having been destroyed by embolism which has taken place in the small vessels, and before recovery can take place softening and evacuation of that bone is inevitable. Of course all this is discouraging to the hope of rapid success in treatment, while not at all at variance with the opinion that the treatment should be persistent and mechanical. I do not believe that Dr. Ridlon himself would claim that the best of specialists could save more than perhaps a bare majority of these cases from suppurative destruction of the head of the bone with shortening, and, of course, a large portion of that type of cases have anchylosis.

Dr. A. BELCHAM KEYES: The blood supply as given in the

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picture before us, would not appear altogether correct. No doubt the main nutrient vessel of the bone plays a part, but the vessels passing into the neck through the numerous foramina on its inferior surface are, perhaps, the chief factors; it is with its apex to this surface that conical tubercular foci most frequently occur. Also it is noticeable that when these vessels are completely torn in fractures of neck, unless impacted, bony union is rare, which points further to the insignificance of the vessel of the ligamentum teres as a source of blood supply.

Dr. A. E. HOADLEY, in closing the discussion, said: I feel flattered with the interest the subject has awakened. I have not presented the pathological condition or any statistics bearing on the subject of pathology; I have endeavored only to urge the present mechanical treatment. When the floating tubercular masses are present in hip joint disease and act as cause, I think the case is hardly worth treating. Where we have these embolic masses setting up a tubercular process there is not much prospect of the patient getting well under any line of treatment. Tuberculosis is the cause of most hip diseases, and I believe it is located by slight traumatisms. I stated that it was impossible to locate the actual position of the disease, and that it made no difference. The gentle treatment, as it has been denominated, so long as it is absolutely efficient, preventing shock, and concussion and allowing no movement of the hip joint, is good enough. I believe we can have localization of the tubercular process in the head and neck of the bone with softening and limited destruction without any impairment of the function. As regards the circulation, it is generally accepted by surgeons that the epiphyseal head of the femur is entirely dependent for its nutrition upon the small artery that finds its way through the round ligament; small blood vessels do not enter into the epiphysis, the circulation between the epiphysis and the shaft is distinct and that is why any accident occurring to the round ligament will cause separation of the head. The objects of this paper are, to induce discussion and attract attention to the importance of early treatment, and to make it more pleasant and agreeable for the little patients who are so unfortunante as to have that disease.

On motion the Society adjourned.

JUNIUS C. HOAG, Sec'y.

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THE CHICAGO PATHOLOGICAL SOCIETY.

Regular Meeting, May 9, 1893.

Dr. C. D. WESCOTT, President, in the chair.

Report of Treasurer read and accepted.

Report of Secretary passed.

Election of officers for ensuing year resulted as follows: Dr. Joseph M. Patton, President; Dr. H. N. Moyer, Vice President; Dr. John M. Dodson, Secretary; Dr. Randolph M. Hall, Treasurer; Censors, Drs. W. E. Clarke, H. M. Lyman and J. N. Danforth.

Applications for membership were received from Drs. Edwin Hamill, E. P. Noel, F. C. Wells.

EXHIBITION OF SPECIMENS.

DR. C. D. WESCOTT: The first specimen which I will show is simply a large placenta, it weighed, with the membranes, a little over three pounds. I show this specimen through the courtesy of Dr. Pierce, of the resident staff of Cook County Hospital and now in charge of the lying-in department. The patient was a colored woman twenty-two years old, this was her fourth child. There was nothing unusual about the child except that it was born dead and gave evidence of having been dead three or four days. The woman was in labor altogether eighty hours, it being a tedious labor; there was no difficulty about the second stage which was completed in about thirty minutes. No post-mortem has been held upon the infant and the cause of death is unknown. The cord was seventeen inches in length and unusually large. I shall be glad to learn if a plancenta of three pounds in weight has occurred in the experience of any one present.

Dr. ELIZA ROOT: At the Chicago Hospital for Women and Children, a placenta was delivered that weighed three and a quarter pounds; the cord was lateral insertion, and the placenta was that of a monster. It was a multiple pregnancy and the two united at the pelvis. I hope to present the specimen to this society very soon.

The other specimen, although perhaps not rare, is of interest to me; it is the uterus and appendages taken from a woman thirty years old, post-mortem. The patient was under the care of Dr. Cotton. I was called in his absence to see the patient. She was married and a ballet dancer. She complained of pain in the pelvis and abdomen, and looked very sick. The temperature was 102, pulse 40. I examined the abdomen and pelvis carefully, there was

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very little tenderness and almost no tympanitis, but examining her vagina I came upon this mass, which felt like carcinoma, but on account of the youthfulness of the patient I thought I was probably mistaken. She evidently had a pelvic peritonitis and that was as far as my diagnosis could go. After being under my observation two days she died with the usual symptoms of septic peritonitis. At the post-mortem, by Dr. Kektoen, there was diffuse peritonitis, with an enormous quantity of exudate gluing the bowels together, the omentum being adherent to the pelvis, uterus and broad ligaments. We found carcinoma of the cervix with superficial erosion; on the left side there was an ovarian cyst as large as a hen's egg and on the opposite side the tube, ovary, broad ligament and uterus were more or less agglutinated by inflammatory adhesions.

The points of interest are the fact of carcinoma uteri in a woman thirty years old which had been undiscovered, and septic peritonitis without other source of infection than the eroded cervix uteri. We hunted carefully for any evidence of multiple carcinosis or carcinoma of the peritoneum but there was nothing of the kind, it was simply a case of peritonitis with infection no doubt coming from the eroded surface of the carcinoma. There was no puss in the tubes, simply a small amount of ichorous fluid. The highest temperature noted was 103°.5, the pulse was small and thready all the time she was under my observation, the countenance was pinched. The uterus is quite small.

Dr. LYMAN: Was there any disturbance of menstruation?

Dr. WESTCOTT: Menstruation had been excessive. She had never been pregnant though married twelve years? There had been only a moderate amount of pain, which was exaggerated at the menstrual periods, but the most noticeable disturbance had been the excessive flow. She thought all her trouble was due to dancing, to being on her feet every night and rehearsing every day. The uterus was so prolapsed that the cervix was within an inch of the ostium vaginae and the whole organ rested upon the rectum. The microscopical examination is not yet completed, but the microscopic appearances are unquestionable.

Dr. A. I. BOUFFLEUR: There is one point in regard to the specimen of the uterus and appendages that perhaps might be brought out to advantage, and that is the extreme rarity with which we get regional or general infection through an abnormal growth, even though it be eroded, and especially so through such a small growth as the one exhibited. We have infection, it is true, through

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carcinomata and sarcomata of large size, with a large area of necrosis following an acute suppurative infection, but with such a small erosion of the cervix as this it would seem that infection with the ordinary form of pus microbe would hardly account for the diffusion of sepsis throughout the whole peritoneal cavity. In fact we had here, I should judge, not an acute suppurative peritonitis, but more truly an acute septic peritonitis, which could come from other causes than pus infection. There is a possibility in this case of there having been a gonorrhoeal infection at some time which has been apparently latent, or at least hemmed in by this inflammatory exudate which for some slight infection with pus or other pathogenic microbes has been started up, developing a very fatal form of acute septic peritonitis. Was there no pus in the cavity, simply a lymphoid exudate which is commonly found in the most fatal forms of septic peritonitis?

DR. WESCOTT: There was a lot of plastic lymph agglutinating the bowels into a mass, but there was nothing fluid like ordinary pus, merely an enormous amount of exudate lymphoid in character.

DR. BOUFFLEUR: Even taking that into consideration, it seems to me that a secondary infection more probably than a primary infection from the eroded carcinoma, was the cause of the diffuse peritonitis. I should think there had likely been primarily a peritonitis, and possibly a septic cellulitis, which had been awakened by this new infection, which could have been of a much lighter degree than the first and still have awakened the first to such a degree as to have caused death. We all encounter cases in which the first attack of peritonitis, while quite severe, did not produce as great constitutional disturbances as when followed by a second attack of even less severity, and I think in that way we could account for the fatality following a case of peritonitis with this small eroded cervix as the apparent point of infection.

Dr. C. D. WESCOTT: This was the only attack of peritonitis of which I could get a history. The woman had been sick about ten days before I saw her, and died just as all these patients die from sepsis; she became delirious, her pulse, at first thready, ran up to 180, and finally disappeared at the wrist altogether, and she died with symptoms of profound oppression of the nervous. system. The kidneys were apparently normal. The urine was not examined but the amount was somewhat lessened. There was one peculiar feature about this case which was the very slight amount of abdominal tenderness. I palpated the abdomen several

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times, pressing the abdominal walls almost back to the spinal column, but she complained of very little pain.

Dr. A. I. BOUFFLEUR: I would say that after a more close inspection of this specimen, I can see bands, some of them very firm, which could not possibly have been formed in a sickness of two weeks, and the two ovaries are practically hidden from view by the adhesions of the parts all about them; one ovary is entirely surrounded by old adhesions, as though included in a cyst cavity, while in the other a cyst has been opened and the ovary forms a part of the cyst wall.

That there had been a former attack of peritonitis is without question, and that the conditions present were the result of a reinfection, or a secondary infection appears to me equally well demonstrated.

Dr. H. N. MOYER: I recall three post-mortem examinations, two of them being young women and one middle aged, where death occurred very suddenly and the cause was found to be septic peritonitis with pus, in two instances, at least, and in neither of these cases was there any ascertainable source of the infection, the tubes and all the contents of the abdomen were carefully examined, including the appendix. No microscopical examination was made, but the macroscopical appearances were entirely normal. One of the cases was a girl sixteen years old, who was taken suddenly ill with symptoms of profound depression, but without fever, or at least none that was noticed by any member of the family. Death occurred in from forty-eight to sixty hours from the onset of the symptoms. The suspicion was raised at the time, and the post-mortem examination was made to determine if this young woman had not died from poison, but nothing was found but septic peritonitis with pus in the peritoneal cavity. It seems to me the cases are interesting as showing the normal, or often the subnormal temperature which sometimes mark these cases and the very profound depression.

Dr. J. M. PATTON: We have various forms of pelvic inflammation in women, with high temperature, and perhaps a discharge of pus through the tubes and uterus or by other tracts, which last a long time and then get well, coming so close to a septic peritonitis that they are a constant source of worry. Then again, we have cases of septic inflammation of the peritoneum that die so suddenly, that it seems as if it must be from poison. I saw a case sometime ago which reminds me of the case cited by Dr. Moyer. A young man about twenty-four years of age, a sailor, came into the

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city in the afternoon, and was taken ill in the evening. He was unable to get his own physician and sent for me at nine oclock. He was walking around the room, had a temperature of 99.5°, complained of a little soreness in his stomach, was restless and uneasy, and would not go to bed. From the character of his pulse and his expression, more than anything else, I partially made a diagnosis of general peritonitis, and waited until morning, when I saw him at nine o'clock. It was then difficult to keep him in bed; he said he was not sick enough to stay in bed. His temperature was a half degree below normal, pulse about 130, rather thready, and expression anxious. I told his mother that he was going to die, and that she had better send for her own physician right away. She would not believe me, nor would she send for her physician at once. They did, however, send for their physican, who saw the man at eleven o'clock, saying he would return the next day. At a quarter of twelve they sent for me, and when I reached there at five minutes before twelve, the man was dead. That illustrates how suddenly some of these cases will die with general septic peritonitis. I don't know how the patient got infected; I could not get an autopsy, but just before death he developed tympanitis enough to make the diagnosis positive. There was no suspicion of appendicitis, the tenderness was general, and there was absolutely none in the iliac region low down.

Dr. I. N. DANFORTH: I would like to inquire of some laparotomist present how much promise of success there would be as to the possibility of recovery had laparotomy been performed in either of the cases cited to-night?

Dr. H. N. MOYER: I remember to have been at a clinic of Prof. Schroeder, in Berlin, in 1883, on that morning he did three laparotomies, and in the third case when he opened the abdomen he found an immense mass of stringy, whitish substance that would break down under the fingers. He said at once that it was tubercular peritonitis and that he had made a mistake in his diagnosis, that he thought it was an ovarian tumor for which he was to operate. He said that of course the patient would die, and sweeping out a few handfuls of this substance he closed the wound and the patient was taken back into the ward. But she did not die; how perfect her recovery was I don't know, but the abdominal growth rapidly became smaller and she left the clinic walking. No irrigation was done at that time. The operative treatment of tubercular peritonitis is based on these cases of accidental opening, where improvement follows.

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Dr. J. M. PATTON: It is generally recognized now that in the majority of these cases there is improvement at least after laparotomy. In tubercular peritonitis drainage without laparotomy would be uncertain work because we would not be sure there were no localized cavities that could not be drained, we would take the risk of only striking one portion, so that laparotomy is generally recognized as being the thing to do in preference to any other form of drainage, open the cavity and drain according to the condition existing. Of course it is the drainage that does the good and not the accidental opening of the abdomen. A great many of these cases remain cured for a number of years. There may be secondary infection of other organs, secondary infection of the lungs or pericardium is often associated with tubercular peritonitis, but the prognosis is good for a time. The difficulty I have met with in making a diagnosis was in getting hold of the case early enough, then at times there is difficulty in making a diagnosis between tubercular peritonitis and tubercular disease of the intestines, to exclude the intestinal process in time to operate with good results.

Dr. A. I. BOUFFLEUR: I don't believe it is the laparotomy, per se, that causes the improvement, but the drainage.

Dr. PATTON: You could not drain without laparotomy?

Dr. BOUFFLEUR: Oh yes, drainage could be established with a trocar; there have been cases of so-called ascites tapped with the trocar and drainage established in this way for weeks, and even months that have resulted in a cure of a tubercular peritonitis. It is the drainage that gives the beneficial effect.

I would say in answer to Dr. Danforth's question, that laparotomy for acute septic peritonitis offers a great deal, if the diagnosis can be made early enough. In Dr. Wescott's case at the time he first saw it and made the diagnosis of acute septic peritonitis operation would have been of no use. Had there been pus in the abdominal cavity it might have been removed by operation, but with such marked systemic sepsis the prognosis would have been just the same, fatal. In these cases without pus formation we do not get the symptoms by which we can make the diagnosis early enough for operative interference to be of benefit. In the cases accompanied with pus formation we sometimes do and operative measures are of great benefit in many cases.

Dr. H. M. LYMAN: The thing still unsettled is whether these patients remain cured. The trouble in tuberculosis is not always limited to the peritoneum. I suppose where it is restricted entirely

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to the peritoneum there might be a permanent cure, but usually the cases are not operated upon soon enough, before the tubercular process has located outside of the peritoneum and in those cases I would be skeptical about a permanent cure.

Adjourned.

THE COOK COUNTY HOSPITAL CLINICAL SOCIETY.

Regular Meeting, May 11, 1893.

Dr. A. R. THOMAS, Chief of Internes, in the chair.

The minutes of the previous meeting were read and approved.

Dr. E. R. LE COUNT read the histories and exhibited patients as follows:

1. Tuberculosis of apex of right lung and aortic stenosis with compensatory hypertrophy. 2. Aortic stenosis, partially compensatory. 3. Rheumatism with purpura.

Dr. D. D. BISHOP exhibited a case of parasitic sycosis, where the parasite had been demonstrated microscopically.

Discussion of cases by Drs. LeCount, Eastman and Bishop.

Dr. C. H. PIERCE read a paper on placenta previa, reporting a case of placenta previa lateralis, occurring in a primipara at full term. Death of fetus about two hours before delivery. No interference except to tampon vagina. Face presentation. No hemorrhage after second stage began. Puerperium normal.

Dr. WILLIAM HESSERT reported a Case of Modified Kŏnigs osteoplastic operation on skull with exhibition of patient.

J. C., aet. 25, laborer. Six months ago fell a distance of twenty-five feet, sustaining a compound fracture of skull situated in left parieto-occipital region. Was unconscious for three days; never had any motor or sensory disturbances at any time. An operation was performed and a loose fragment of bone removed of size of silver half dollar. Patient made a good recovery from operation, and never had any untoward symptoms, except a persistent dizziness which he has had from very beginning, would even fall over at times. Complains also of the pulsating bony defect which causes him considerable uneasiness, and for which he entered hospital for operation. Examination shows a stellate cicatrix in left parieto-occipital region, scalp firmly adherent at this point, where there is also felt a defect in skull, about one inch in diameter con-

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siderably depressed and at times pulsating. No tenderness nor unusual occurrence on pressure.

OPERATION—Large horseshoe flap with convexity upward was reflected, leaving periosteum attached to bone. Scalp dissected off where it was adherent to depression. The edges of the bony defect were freshened, and some of the superabundant fibrous tissue removed. Then a flap was raised from parietal bone anteriorly, consisting of periosteum and tabula externa, as follows :

An incision was made through periosteum somewhat larger and of the shape of defect to be covered. Convexity upward and an attached neck below. Then a gutter was chiseled down to diploë conforming to shape of defect. This piece of bone was then gently separated from diploë, preserving its attachment to periosteum as much as possible. This piece of outer table held by the neck of periosteum below like a hinge, was then turned around and placed over the opening to be closed in, which it accurately fitted. Periosteum then sutured in place with catgut, which held the shell of bone quite firmly. Primary union throughout, and on examination of patient now, very little irregularity of skull can be discovered. Patient claims his vertigo is improved.

The operation as first performed by König in 1890, was to reflect a flap including scalp, periosteum and outer table, and slide it over the defect to be covered, the denuded area being covered by skin grafts. This operation for the closure of bony defects has been performed by Schönborn, Wolff, Fenger, Tietze, Borelius and others.

Dr. B. L. EASTMAN showed a spinal cord from a case of cerebro-spinal meningitis. Discussion of case by Drs. Eastman, LeCount and Pierce.

Adjourned.

A. F. SIPPY, } Secretaries.
R. B. OLESON, }

Regular Meeting, April 20, 1893.

Dr. A. R. THOMAS, Chief of Internes, in the chair.

The minutes of the previous meeting were read and approved.

Dr. B. L. EASTMAN reported cases and exhibited patients as follows:

1. Locomotor Ataxia.
2. Mitral regurgitation with dyspnea.

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3. Pleurisy with effusion, twenty ounces of fluid having been removed; mitral regurgitation, aortic regurgitation, aortic stenosis with dyspnoa.

Dr. D. D. BISHOP reported a case of tinea versicolor with exhibition of patient and microscopical examination of the microsporon furfur derived from the case.

Dr. A. F. SIPPY reported a case of cellulitis of the hand with gangrene of the thigh in a diabetic patient which resulted fatally, patient having been comatose nearly forty-eight hours.

Discussion of cases by Drs. J. B. DeLee, F. X. Walls, Thomas, Eastman, Hessert, LeCount and Bishop.

Adjourned.

A. T. SIPPY, R. B. OLESON, } Secretaries.

News Items.

Dr. RICHARD DEWEY has opened offices in the Venetian Building.

Dr. GEORGE HOMAN has been appointed Health Commissioner of St. Louis.

Dr. HAROLD N. MOYER has removed his office to 910 Columbus Memorial Building.

Dr. FLORENCE W. HUNT has removed her office to 907 Columbus Memorial Building.

THE ONTARIO MEDICAL ASSOCIATION will hold its annual meeting at Toronto, June 21 and 22.

Dr. C. C. BERRY after June 1st will make his residence and office at 1800 Wabash Avenue.

Dr. E. L. HOLMES has removed his office to the Marshall Field Building, 31 Washington Street.

"PUBLIC symphyseotomy" is mentioned in a contemporary as a step in operations on the bladder.

Dr. A. R. SMALL has removed his office from 3300 State Street to the Columbus Memorial Building.

Dr. WELLER VAN HOOK has opened an office at 1104 Columbus Memorial Building, hours 2 to 3 P. M.

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PROFESSOR ROBERT KOCH has been elected a Foreign member of the Stockholm Academy of Science.

Dr. A. H. BRUMBACK has changed his residence to 109 Loomis Street, with office at 350 Loomis Street.

DR. JOHN B. HAMILTON has been chosen by the trustees of the Americen Medical Association to edit their Journal.

Dr. LUDVIG HEKTOEN has opened offices in the Columbus Memorial Building, with hours from 2:30 to 4 P. M.

PROFESSOR VON ESMARCH, of Kiel, has been elected President of the German Surgical Congress to be held in 1894.

THE WORLD'S CONGRESS OF MEDICO-CLIMATOLOGY held its meetings in the Art Institute May 29th to June 3d inclusive.

Dr. A. G. HOADLEY will rent his office and equipments in the Venetian Building from 8 A. M to 11 A. M., at a very reasonable rate.

DILATATION OF THE RECTUM is now proposed as a cure for rheumatism, and the one who suggests it is not an orificial philosopher.

A BACTERIOLOGICAL INSTITUTE has been established at Bremen, of which Dr. Kurth has been appointed Director by the Imperial Health Office.

Dr. A. H. Ohmann-Dumesnil has retired from the editorship of the *Medical Review* of St. Louis, and Dr. L. T. Riesmeyer reigns in his stead.

THE GERMAN CONGRESS of Internal Medicine will hold its annual meeting next year at Munich under the presidency of Professor Quincke, of Kiel.

A GIFT TO MCGILL UNIVERSITY. Sir Donald Smith has made another gift to McGill University of $100,000, to endow a chair of pathology and hygiene.

THE LATE DR JAMES AITKENS MEIG'S library of five thousand volumes has been presented by his father to the Philadelphia Academy of Natural Sciences.

SYMPHYSEOTOMY has been performed twenty times in the United States and Canada. In Europe the operation has been performed upon fifty-one patients.

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DR. CHARLES K. MILLS has been elected Professor of Mental Diseases and of Medical Jurisprudence in the University of Pennsylvania, in the Medical Department.

PROF. ERB, of Hiedelberg, who was selected by the Professorial College of the University of Vienna to succeed the late Professor Kahler, has declined the appointment.

SCHNITZLER, founder and director of the General Polyclinic of Vienna, and Professor of Diseases of the Throat and Chest, died of erysipelas on May 2d, age fifty-eight years.

THE F. A. DAVIS PUBLISHING COMPANY, of Philadelphia, have placed L. D. Pierce, formerly of the Philadelphia office, in charge of their local agency, in the Lakeside Building.

JEFFERSON MEDICAL COLLEGE has followed the example of Cook County Hospital in having the nurses' quarters in a building near the hospital, rather than in the hospital itself.

Dr. MOREAU R. BROWN has been elected Professor of Rhinology in the Chicago College of Physicians and Surgeons, and Dr. Pusey formerly of St. Louis, Professor of Dematology.

GOOD SWIMMERS DROWN, not from cramp, but from perforation of the eardrum, with resultant vertigo and unconsciousness from water pressure; at least so says the *Northwestern Lancet.*

Mr. ERNEST HART, editor of the *British Medical Journal,* arrived in Chicago last month, and was the recipient of numerous courtesies from the local profession before going to Milwaukee.

THE AMERICAN ASSOCIATION OF OBSTETRICIANS AND GYNECOLOGISTS will hold its annual meeting under the presidency of Dr. Lewis S. McMurtry, of Louisville, at the Russell House, Detroit, June 1, 2 and 3.

A NIGHT DISPENSARY is a novel feature of the Central Hospital recently chartered in Philadelphia. The object is to enable the poor people who could not leave their work by day, to obtain free medical advice.

THE ROOSEVELT HOSPITAL TRUSTEES, of New York, for some reason not yet explained, have refused the gift of Mrs. Abram A. Anderson, amounting to over $300,000, which they at first accepted with enthusiasm.

FOR SALE.—A complete Medical and Surgical History of the War, consisting of three medical and three surgical volumes for

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$150. Examination allowed before payment. Address, Lock Box 94, Renova, Pa.

PROF. WERNICKE, of Breslau, has declined an invitation to succeed the late Professor Kahler, as Professor of Clinical Medicine at Vienna. It is thought the chair will be offered to Professor von Jaksch, of Prague.

THE CHICAGO COLLEGE OF PHYSICIANS AND SURGEONS offers ten scholarships each of which is valued at $100 a year, for three years, to such applicants as present evidence of the best qualifications for medical study.

THE OHIO STATE MEDICAL SOCIETY will hold its annual meeting at the Hotel Victory, Put-in-Bay, on June 28, 29 and 30. With so good a meeting place and a good programme the meeting should be a great success.

"BONELESS AMPUTATION at the Hip-joint" is what the chirography of the editor, the fault of the compositor or the carelessness of the proof reader of the *Canadian Practitioner*, makes of the title of Dr. Senn's new method.

THE MASSACHUSETTS STATE MEDICAL SOCIETY holds its one hundred and twelfth annual meeting on June 13 and 14, in the building of the Massachusetts Charitable Mechanic Association on Huntington Avenue, Boston.

HERNIA, says Dr. W. H. Link, after a long experience as pension and life insurance examiner, is the exception in fat men. Dr. Manley, of New York, confirms the statement and adds that hernia is most frequent in fat women.

THE BACILLUS OF DIPHTHERIA has been found in the pharynx of persons who had suffered from the disease, five weeks after their apparent cure, and after the entire disappearance of the membrane. When are cured diphtheretics cured?

THE NEW YORK POST-GRADUATE SCHOOL has increased its faculty by the election of Drs. A. Palmer Dudley and George M. Edebohls as Professors of Diseases of Women, and Dr. George F. Elliot as Professor of Diseases of the Skin.

PROF. FINKLER, of the University of Bonn, has been spending a considerable time in Chicago. He delivered a lecture at the Chicago Policlinic last month on the bacteriology of pneumonia. He has also appeared before other schools and local societies.

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Dr. JOHN E. Owens entertained Mr. Ernest Hart, of London, June 2d at dinner. There were present to meet the distinguished editor of the *British Journal*, beside the host and Mrs. Owens, Drs. Billings, Ridlon, Hyde, Legard, U. S. A., Church, Roler, Dudley and Steele.

THE HERING HOMEOPATHIC MEDICAL COLLEGE, of Chicago, has received an endowment from Mrs. George Whitney of $100,000, it is reported. Mrs. Whitney is a homeopathic graduate of medicine. They propose to erect buildings near the Chicago University.

Dr. THOMAS ADDIS EMMET has contributed to the New York *Journal of Gynecology and Obstetrics* for May, a most interesting reminiscent article regarding the founders of the Woman's Hospital Association, illustrated by portraits of the originators of the Association.

Dr. F. E. WAXHAM has removed to Denver, Colorado, where his address will be 1629 Downing Avenue. His prominence and activity in the local profession insures him success in his new surroundings and he bears with him the hearty good wishes of all his medical friends.

THE AMERICAN MEDICAL ASSOCIATION, at its recent annual meeting in Milwaukee, elected Dr. James F. Hibbard of Richmond, Ind., President; John C. Wyeth, I. N. Love, Thos. Mursell and U. O. B. Wingate, Vice Presidents; R. J. Dunglisen, Treesurer; U. B. Atkinson, Secretary; Geo. W. Webster, Librarian.

THE MCINTOSH BATTERY AND OPTICAL COMPANY have sold their optical department and hereafter will confine themselves to the manufacture of electrical, physical and scientific apparatus, occupying the second floor at the same number as heretofore, 141–43 Wabash Avenue. Their new catalogue may be had upon application.

Dr. FRANKLIN H. MARTIN, of this city, has proposed a procedure for the checking of uterine hemorrhage, especially in case of bleeding fibroids. He throws a strong ligature around a portion of the broad ligaments, so as to include the uterine arteries. He reports two cases in which this procedure has been employed, with good results.

STRONTIUM AND CALCIUM SALTS are remedies recently brought forward for the treatment of albuminuria. The observations of

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Paul, Dujardin-Beaumetz and Germain Sée have demonstrated the value of these agents. They may be prescribed as follows: Lactate of strontium, bromide of strontium, bromide of calcium or chlor. bromide, in the dose of four grammes daily.

THE NEWBERRY LIBRARY, owing to a typographical error in the report of Dr. Graham, was stated, in the May issue of the RECORDER, to be open Wednesdays from 9 A. M. to 10 P. M. It should also have read, "Open week days." It should also be stated that the Library is making extensive purchases of new medical books.

THE NORTH MISSOURI MEDICAL SOCIETY was organized at Moberly, April 18; with an initial attendance of seventy-five members. Dr. Woodson Moss, of Columbia, was elected President; Dr. J. J. Norton, of Monroe City, and Dr. G. R. Highsmith, of Carrolton, Vice Presidents; Dr. E. S. Wenger, Secretary, and Dr. Robert Haley, Treasurer, both of Brookfield.

NEW YORK POST-GRADUATE MEDICAL SCHOOL. At a meeting of the Board of Directors held May 17, 1893, A. Palmer Dudley, M. D., was elected Professor of Diseases of Women; George M. Edebohls, M. D., Professor of the Diseases of Women; and George T. Elliot, M. D., Professor of Diseases of the Skin. J. West Roosevelt, M. D., has resigned his position as Professor of Clinical Medicine.

A MEDICAL PRACTICE ACT has been passed by the Legislature of Pennsylvania, which establishes three State Boards of Medical Examiners. The work of these examining boards is to be supervised by a Medical Council composed of the Lieutenant Governor, the Secretary of Internal Affairs, the Superintendent of the State Board of Health and the Presidents of the Examining Boards. Four years' study of medicine is required.

Dr. R. J. PATTERSON, at one time Professor of Medical Jurisprudence in the Chicago Medical College, and for many years proprietor and manager of a private insane asylum at Batavia, Illinois, called Bellevue Place, died April 27th, after a short illness, although he had been in failing health for several years. He was a man of extraordinarily gentle and courteous manners, of keen perceptions and of kindly heart. As a physician and alienist he was highly considered by all.

Dr. HENRY D. NOYES, of New York, delivered a lecture in the World's Fair Lecture Course of the Post-Graduate Medical

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School on May 23. The subject of his lecture was "Eye Affections and Brain Lesions." After a review of brain localizations, the lecturer took up the subject of hemianopsia, which he considered at such length that he was unable to do more than to sketch other eye affections. Dr. Noyes received a hearty welcome and his interesting lecture was highly appreciated by the large audience which assembled to greet him.

THE TENNESSEE STATE MEDICAL SOCIETY held its sixteith annual meeting in Nashville, April 11, 12 and 13. The meeting was one of the most successful in the history of the society. The following officers were elected for the ensuing year: President, Dr. N. T. Dulaney, of Bristol; Vice-Presidents, Dr. F. L. Sim, of Memphis; Dr. T. H. Marable, of Clarksville, and Dr. D. E. Nelson, of Chattanooga; Secretary, Dr. S. S. Crockett, and Treasurer, Dr. Ambrose Morrison, both of Nashville. The Society adjourned to meet in Memphis the first Tuesday in April, 1894.

THE ILLUSTRIOUS DEAD. During the last month have died Dr. Arnaldo Cantani, Professor of Clinical Medicine in the University of Naples, renowned for his pathological researches and for his treatment of cholera by injection of fluids, aged fifty-six. Dr. Hans Kundrat, Professor of Pathological Anatomy in the University of Vienna, and connected for more than a quarter century with the Pathological Institute of Vienna, aged forty-nine; and Dr. J. Schnitzler, Professor Extraordinary of Internal Medicine and Laryngology at the University of Vienna, aged fifty-eight years.

Dr. ARTHUR R. REYNOLDS, Health Commissioner of Chicago, has sent out a communication to the local profession requesting their aid and support in the management of infectious diseases, and begging them to give his office information regarding cases of typhoid, for statistical purposes only, and assuring them that such cases will not be placarded. He also gives the information that in contagious diseases as soon as his office is assured by the medical attendant that danger of contagion is passed, warning cards that have been posted will be removed. This a material improvement over the thirty days limit heretofore unreasonably enforced.

ERYSIPELAS VS. SARCOMA., Dr. W. B. Coley has found a case which seems to furnish convincing evidence that erysipelas possesses a powerful curative principle antagonistic to sarcoma and carcinoma. He has collected thirty-eight cases of malignant disease in which erysipelas occurred accidently in twenty-three cases and

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as a result of inoculation in fifteen cases. Seventeen were carcinoma, seventeen sarcoma and four either carcinoma or sarcoma. Of the seventeen carcinomas, three were permanently cured, one well after five years, and 10 improved. Of the seventeen cases of sarcoma, seven were well after from one to seven years, and all but one of the remaining cases showed improvement to a more or less marked degree.

END OF VOL. IV.

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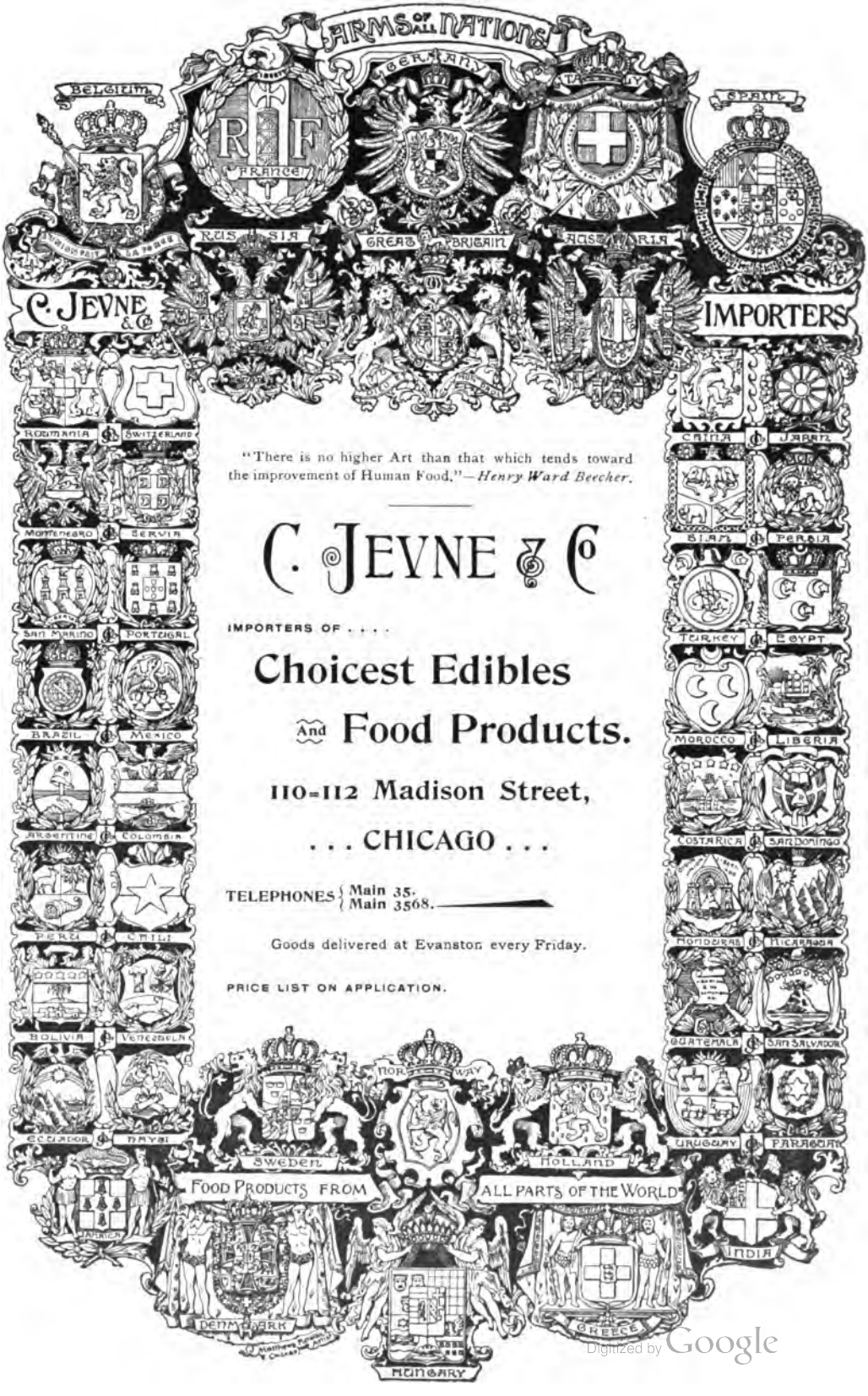

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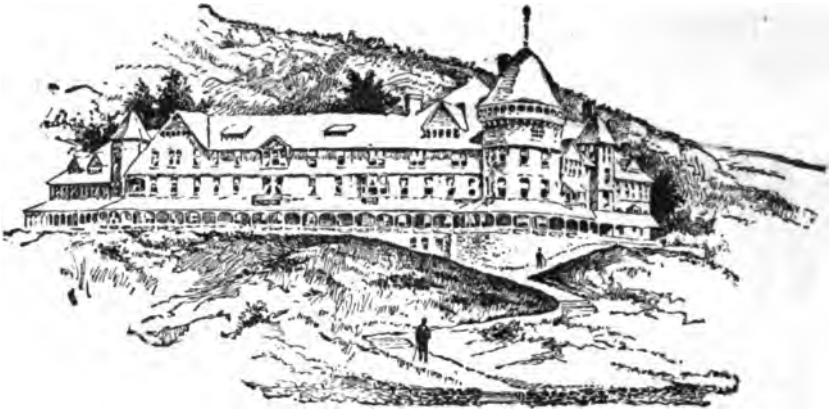

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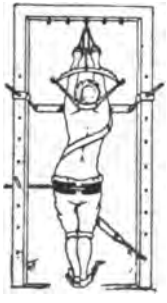

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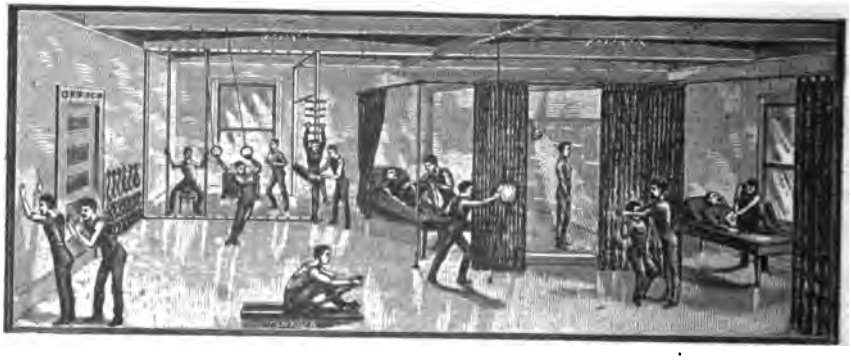

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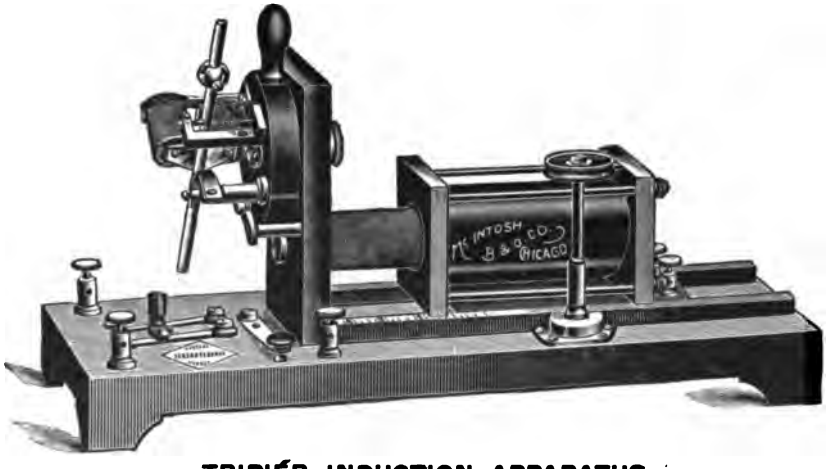

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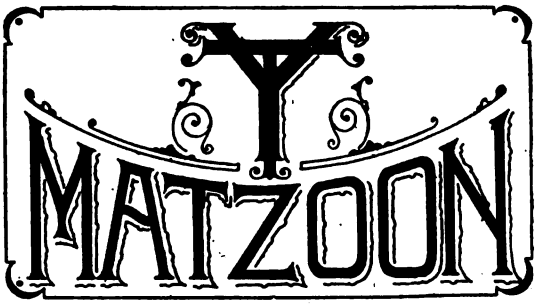

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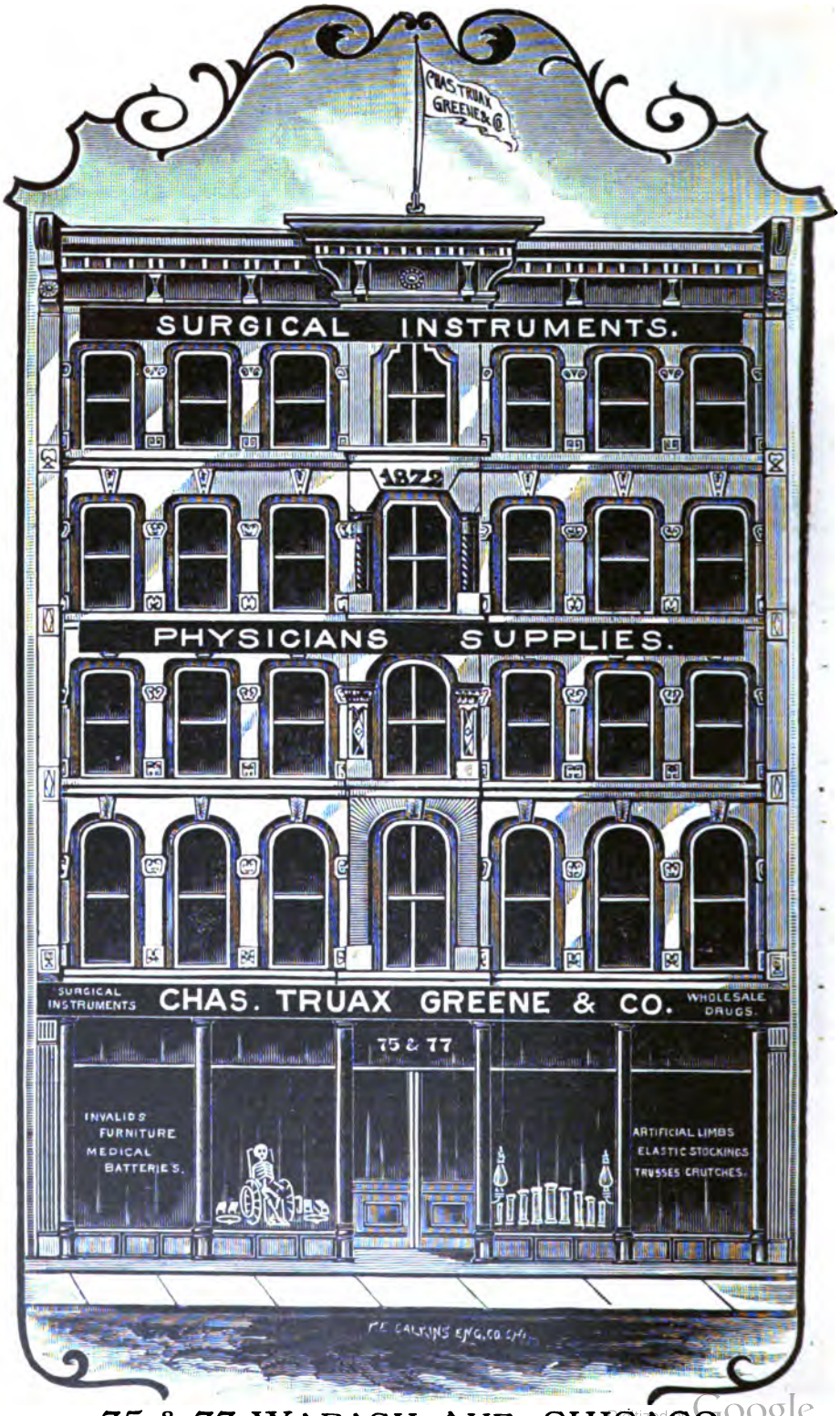

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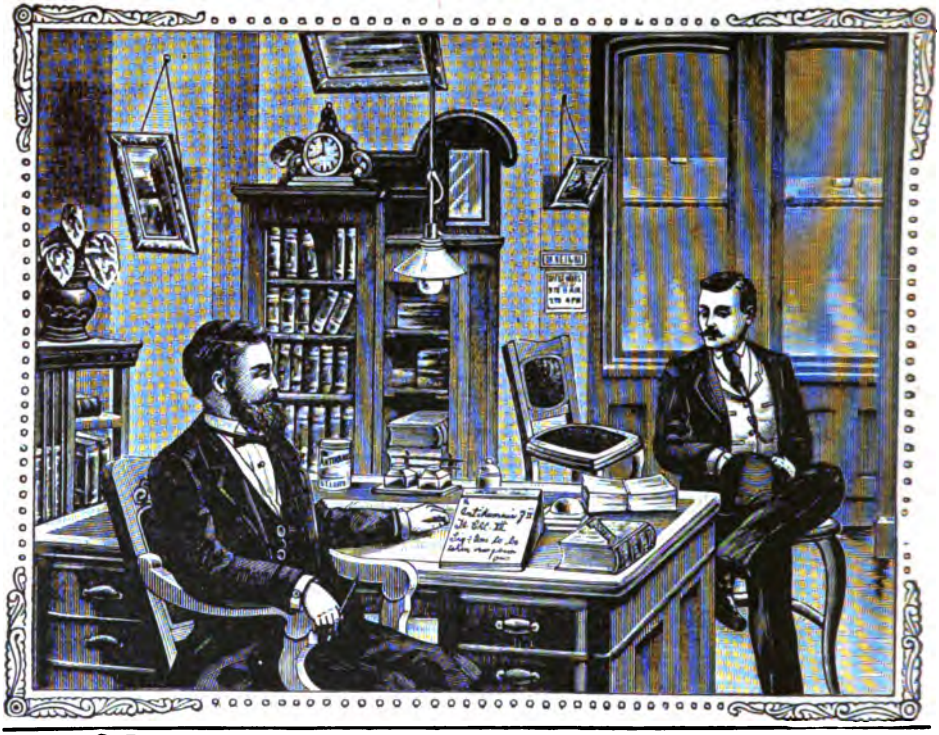

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Fig. IX—Chloroform Position.

Fig. XVII—Dorsal.

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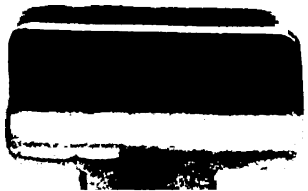

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